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ABSTRACT

A monograph examines the role of risk and risk management in experiential education, particularly stress/challenge programming. Definitions of risk are presented. The importance of risk and stress in experiential education is emphasized. Implications of subjective versus objective risk assessment in adventure education are discussed, with reference to the goals, objectives, and obligations of adventure education and the paradox of safety versus risk. A general perspective on risk management is followed by listing five types of risks and six alternatives/tools for risk management. A chapter on safety engineering in risk management includes consideration of human and mechanical factors involved in accidents. Another chapter defines insurance, discusses its general costs and benefits, and provides insight into non-insurable risks. The concept of legal liability is examined in terms of contractual agreements involving insurance and tort law; current legal concerns in adventure education are briefly discussed. Concerns of administrators, instructors, participants, professional associations, government, and higher educational institutions are addressed. Bibliographies list 150 relevant publications. Appendices include emergency procedures and recommendations on risk management from the Association for Experiential Education, an insurance checklist, a legal liability inventory, and forms for stress/risk analysis. (MH)

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THE ROLE OF RISK AND RISK MANAGEMENT
IN EXPERIENTIAL
EDUCATION

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by

Michael Mobley

May, 1981

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Chapter 1

RISK: THE FIRE THAT WARMS, THE FIRE THAT BURNS

The Friday, November 29th, 1980, evening radio news broadcast reported that the search and rescue authorities believed that eight youth and two adult staff were washed overboard in a recent storm in the Gulf of California. They had not yet located the bodies. The eight youth were students/participants in a "community based program for the treatment of emotionally and behaviorally disordered adolescent boys and girls."[1]

The nationally famous Vision Quest program describes its treatment as "intensive, confrontive, and based in reality."[2] Vision Quest believes its methodology is particularly effective with those labeled as "hard core" delinquents. That methodology shares with the other high-impact programs the key concepts of stress, challenge, skill mastery and unfamiliar time-space orientation. Sea Camp (a component of Vision Quest), located at Catalina Bay near Guaymas, Mexico, is the center for a two-month training program. "This training program prepares youths for a fourteen day sailing expedition where the skills they have learned are put to the test."[3]

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[1] Vision Quest publicity material, 1980.

[2] Ibid.

[3] Ibid.

A test implies risk: an uncertainty about the outcome, a possibility of gain or loss. "It could be said that risk is the essence of living, for really to live is to take risks--and the ultimate risk is death!"[4] The Vision Quest crew had apparently failed their test.

The news of tragedy strikes individuals differently. There are numerous programs that use similar methodology to that used at the Vision Quest program. To the professional educator/therapist who directs an adventure stress/challenge program in the human services there is a heartfelt, gut-tightening empathy: a feeling that is based on the acknowledgement that it could have been or may someday be their program/their staff/their students. Such a feeling provides the impetus for this paper, the thrust of which is the re-examination of the role of risk and risk management in adventure stress/challenge programming.

The Taste of Risk

> 'Everything is sweetened by risk,' said Alexander Smith. From birth to death and beyond the grave, uncertainty is universal--even desirable. As Cardinal Newman said, 'There would have been no triumph in success if there had been no hazards of failure.' Even with the infinite variety of uncertainties that face each of use every moment of every day, we sometimes seek out additional risks to add zest to our lives. Gambling in one form or another has existed in all societies and at all levels of civilizations. . . .[5]

Some civilizations and cultures like the ancient Germans believed that in the life after death there would be ample facilities for people to engage in games of chance.[6]

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[4] Joel F. Meier, "Is the Risk Worth Taking?" Journal of Physical Education and Recreation, Vol. 49, No. 4 (April, 1978), p. 8.

[5] H. Wayne Snider, ed., Risk and Insurance (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), p. 3.

[6] John Cohen, Chance, Skill, and Luck (Baltimore: Penguin Books, Inc., 1960), p. 27.

The bitter taste of risk is also respected, as described by Professor Wayne Snider of Temple University:

> ". . . throughout history man has constantly tried to control uncertainty and to reduce risk. Major advances in human progress have been achieved by minor reductions in risk. The banding of persons into tribes, the discovery of fire, the domestication of animals, and the evolution of agriculture have all been means of reducing risks. Even the development of religion, in the opinion of some, was the method of reducing uncertainty in human affairs. Voltaire said, 'If God did not exist, it would be necessary to invent Him.' In our day, the emergence of social security and the welfare state may be regarded as the reflection of man's desire to introduce greater certainty into his life, to make his days less risky.[7]

Defining Risk

Gamblers, educators, adventurers, economists, insurance agents and others each have a daily involvement with the term "risk." Each person may have a slightly different definition of what the term means. The same person may use "risk" to describe a thing on one occasion and use the same term to describe a different thing on a different occasion. Large variations on the term can be found in the following definitions:

1. "The possibility of loss, injury, disadvantage, or destruction."[8]

2. ". . . an uncertainty of loss. As such, it is a psychological phenomenon that is meaningful only in terms of human reactions and experiences."[9]

3. "Risk will be defined in this text as objective doubt concerning the outcome in a given situation. It is the doubt a person would

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[7] Snider, op. cit., p. 4.

[8] Webster's New Third International Dictionary (Springfield, Massachusetts: S. & C. Merriam Company, 1964), p. 1961.

[9] Herbert S. Denenberg, et al., Risk and Insurance (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 4.

have concerning the future outcome even if he knew all the possible outcomes and their probability or chance of occurrence."[10]

4. "The essential element of risk is unpredictability, a tendency that actual results may vary from predicted results."[11]

5. "Risk is the chance of loss or the occurrence of an unfavorable or undesirable contingency."[12]

6. "Risk . . . is the objectified uncertainty as to the occurrence of an undesired event."[13]

7. "Risk is a combination of hazards measured by probability."[14]

8. " . . . risk can only be satisfactorily understood as a 'variance' concept . . . ."[15]

9. " . . . risk is defined as the possibility that a sentient entity will incur loss."[16]

10. " . . . risk is . . . a measurable uncertainty."[17]

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[10] C. Arthur Williams, Jr. and Richard M. Heins, Risk Management and Insurance (New York: McGraw-Hill Book Company, 1964), p. 5.

[11] John H. Magee and David L. Bickelhaupt, General Insurance, seventh ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1964), p. 3.

[12] James L. Athearn, Risk and Insurance (New York: Appleton-Century Crofts, 1962), p. 36.

[13] Allan H. Willett, The Economic Theory of Risk and Insurance (Philadelphia: University of Pennsylvania Press, 1951), pp. 9-10.

[14] Irving Pfeffer, Insurance and Economic Theory (Homewood, Ill.: Richard D. Irwin, Inc., 1956), p. 42.

[15] David B. Houston, "Risk, Insurance, and Sampling," Journal of Risk and Insurance, Vol. XXXI, No. 4 (December, 1964), p. 517.

[16] Mark R. Greene and Paul Swadener, Insurance Insights (Cincinnati, Ohio: South-Western Publishing Co., 1974), p. 3.

[17] Frank Knight, Risk, Uncertainty, and Profit (Boston: Houghton Mifflin Company, 1921), p. 233.

11. As a verb: "To expose to a chance of loss or damage."[18]

From the above definitions there are several terms that seem to be interchangeable with "risk": chance, uncertainty, possibility, probability. Risk can be viewed as primarily a psychological phenomenon (i.e., a subjective reality) or as an objective state occurring when an activity takes place. For example, years ago there was no scientifically proven link between lung cancer and smoking. New scientific discoveries have provided such a link. Now smoking is considered a risk to one's health.

Risk should not be confused with the term "peril." Peril is the source of the loss as distinct from the uncertainty about a loss.[19] A fire, a broken rappell rig, a liability judgment are all sources from which losses occur. They are perils that give rise to risk, but they are not risks themselves.

Another term often confused with risk is "hazard." Hazard is the condition that increases the likelihood of loss. There are generally two kinds of hazards: physical/environmental and human.[20] Examples of the first would include: a badly worn belaying rope, the summit of a mountain during a lightning storm and bad brakes on a school bus. Examples of human hazards would include accident-proneness, carelessness, failures in judgment.

A risk may be further classified as being speculative or pure. Speculative risks hold forth the promise of gain or the chance of loss.

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[18] Peter Davies, ed. The American Heritage Dictionary of the English Language (New York: Dell Publishing Co., Inc., 1976), p. 608.

[19] Snider, op. cit., p. 8.

[20] Ibid.

Pure risks are taken with the prospect of only loss or no loss. The distinction between the two is important because many of the techniques for treating a pure risk are different from those used in treating a speculative risk.[21] This will be covered in much greater detail later in this paper.

A Look Ahead

What should be clear from the above discussion is that an examination of risk does not in any way lie in a particular domain or discipline. The focus of this paper will be on risk management, the hypothesis being that an activity which is legally and educationally sound and safe uses an optimal amount of risk. Since individuals respond to risk differently at different times, the adaptation and management of risk is crucial.

An interdisciplinary examination of risk and risk management will demonstrate a remarkable similarity of ideas and theories as to what is the optimal amount and kind of risk. In this paper the author will explore that coalescence. By the illumination of each of the various perspectives of risk management (e.g., educational, legal, safety engineering, insurance) light is shed on the other disciplines and ultimately a clearer, more wholistic and realistic view is attained.

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[21] Ibid., p. 6.

Chapter 2

THE ROLE OF RISK IN EXPERIENTIAL EDUCATION PROGRAMMING

"And, you all know, security is mortals' chiefest enemy."

(Hecate in Macbeth Act III, Scene 5)

Understanding the concerns and importance of risk-management in Experiential Education demands re-examining the assumption that risks and risk taking are inherent and crucial components of the methodology and modality of experiential learning. In this section the author will establish such importance.

At the onset the author will suggest that the nature of experiential learning involves educating all aspects/domains of an individual. Adventure education is one particular programmatic approach to experiential learning. Adventure by its very definition involves the assumption of risks.

Yet the simplicity of such a definition belies the complexity of the issues and factors involved. In this chapter the author will attempt to unravel those issues and factors by an extensive review of literature/studies on risk and related topics. Such a review will provide the foundation for understanding the role of risk and risk management in experiential learning. This investigation will provide an understanding of the antecedent concepts of stress and risk which when understood together provide the basis for insight into stress-seeking and risk-taking behaviors. Understanding the motivations and controlling factors of such behaviors on an individual participant's level helps explain the current social phenomena called the "Risk-Revolution." Reviewing the extensive literature on this phenomena provides a basis for understanding why there is a need (and market) for adventure education (i.e., education involving risk taking).

A starting point is the understanding of the goals and nature of experiential learning.

> Formal education at all levels has been devoted primarily to the cognitive domain of learning, at the expense of the affective and psychomotor areas. Though this tripartite division is arbitrary, it is often a useful tool for analyzing education programs. Most schools stress the cognitive domain in the bulk of their formal offerings. Unfortunately, this emphasis is usually at the expense of the affective and psychomotor domains. The goal of experiential education, then, is to strive to achieve a better balance between the three areas. A specific example of experiential education, adventure education is a programmatic approach to balancing the three domains.[22]

Adventure education activities usually contain physical (psychomotor) involvement, stimulate feelings, attitudes, values, emotional and psychological areas (affective domain) and involve problem solving (cognitive domain).[23]

The specific goals and objectives of adventure education will be discussed in detail later in this chapter. For now it is sufficient to note that adventure-education inherently includes the assumption of risks (primarily thought not exclusively physical risks).

Although this chapter will focus on adventure education as a subset of experiential education the issues raised apply to a broad base of other types of programming (e.g., outdoor recreation, outdoor education and physical education). Further clarification of this will follow in the next chapter.

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[22] David Wood and James Gillis, Jr. Adventure Education (Washington, D.C.: National Education Association, 1979), p. 9.

[23] Ibid.

In order to understand the role of risk as a component of experiential learning/teaching one must understand several antecedent concepts: stress, risk, stress seeking and risk taking, and the "risk revolution."[24]

Stress

> Colloquially, stress is often used to define a characteristic of an act. However, situations per se do not contain stress. Rather, situations may induce stress, or more accurately a stress reaction in an individual. This response includes a variety of physiological and psychological manifestations.[25]

The stress reaction is a sequence initiated by a stimulus that is perceived by the individual to be "impinging."[26] Unless the stimulus is perceived as being impinging no stress reaction will occur.[27] Thus, stress is an internal reaction to perceived external conditions, conditions which are perceived to be "a departure from optimum conditions which the organism is unable, or not easily able, to correct."[28]

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[24] Diana Dunn and John Gulbis, "The Risk Revolution," *Parks and Recreation*, Vol. 11, No. 8, August, 1976), pp. 12-17.

[25] David Neimand, *Attitudes About, and Preferences for, Physical Risk and Vertigo Risk Among Participants in Selected Sports* (Greeley, Colorado: University of Northern Colorado, Published Doctor of Education Dissertation, 1978), p. 3.

[26] Ibid.

[27] J.E. McGrath, ed. *Social and Psychological Factors in Stress* (New York: Holt, Rinehart and Winston, Inc., 1970), p. 15.

[28] A.T. Wellford, "Stress and Performance" (London: Taylor and Francis, 1974, in *Man under Stress*), p. 1.

Thus, the role of perception and evaluation is critical in defining situations as being stressful. "Selective perception can either mask, intensify, or create stressful stimuli."[29] Since individuals may perceive situations completely different, virtually no situations are inherently stressful. In addition, an individual may perceive a situation as stressful on one occasion and not stressful on another occasion. Research by McGrath[30] and Sells[31] have indicated that stress may be situation-specific and not a general condition.

The stress sequence referred to earlier has been investigated by many including Dr. Hans Selye. He described the sequence as the "general adaptation syndrome" (G.A.S.) and identified three stages: 1) the alarm reaction, 2) resistance stage, and 3) the exhaustion stage.[32] During the alarm reaction there is a temporary impairment of physiological functioning as the defenses of the body are rallied and consolidated for the resistance stage. During the resistance stage an individual's "coping" mechanisms are employed to return the body to a state of homeostatis (i.e., a natural balance that existed prior to the onslaught of stress). These "coping mechanisms are learned, a product of past experiences in handling stress, and may be functional or dysfunctional for problem solving."[33] The exhaustion stage of the G.A.S. is only reached if the individual's coping mechanisms are inadequate. If this stage is reached, the result may include physical debilitation, or death, apathy, resignation, uninvolvement, and a profound sense of futility.[34] If the coping mechanisms are adequate the body returns to homeostatis. There is also the potential for "heterostatis" which Selye defines as "the establishment of a new steady state."[35] Simply speaking, an individual's internal thermostat of resistance may be changed by external interventions or treatments.

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[29] Neimand, loc. cit.

[30] McGrath, loc. cit.

[31] S.B. Sells, "On the Nature of Stress" in J.E. McGrath, ed., Social and Psychological Factors in Stress (New York: Holt, Rinehart and Winston, Inc., 1970), p. 134.

[32] Hans Selye, The Stress of Life (New York: McGraw-Hill, 1956), p. 64.

[33] Clay Hamner and Dennis Organ, Organizational Behavior (Dallas, Texas: Business Publications, Inc., 1978), p. 194.

Stress is inherently neither good nor bad for an individual.

> . . . a certain degree of stress seems to be a precondition for psychological growth, achievement, and the development of new skills; although stress always involves at least some temporary degree of discomfort, it is frequently the occasion for the emergence of creative solutions to personal or organizational problems. On the other hand, inordinate or prolonged stress can cause apathy, breakdowns in performance, and psychological or physical withdrawal. . . .[36]

Thus, a clear distinction can be made between "distress" or "dys-stress" (pathogenic response) and "eustress" (healthy response).[37] Both dys-stress or eustress may be voluntarily assumed. Voluntary dys-stress is associated with the assumption of responsibilities beyond the reasonable call of duty, for example, a young unmarried woman assuming the responsibility voluntarily for supporting her ill brother's family. Dys-stress is basically energy depressing and unpleasant. "Eustress, contrawise, is associated with excitement, adventure, thrilling experiences.

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[34] Ibid., p. 195.

[35] Hans Selye, Stress Without Distress (New York: Signet, 1974), p. 46.

[36] Hamner and Organ, loc. cit.

[37] Hans Selye, "Further Thoughts on Stress Without Distress" Resident and Staff Physician, Vol. 23, No. 4, 1977, pp. 124-127.

It is fun, it enhances with sensations, it 'turns people on,' it releases energy."[38] The notions of dys-stress and eustress indicate that each individual needs "just enough" stress in his/her life in order to be fully functioning, not too much--not too little--an optimal amount.

Risk

In the introduction chapter many definitions for the word risk were given. Two aspects emerged that will be considered here. First, risk may be considered a subjective phenomenon. . . i e., the risk inherent in an activity may be determined by how an individual perceives that risk. Second, risk as an objective phenomenon may be determined by a statistical analysis of an activity and its outcomes. . . the amount of hours involved in an activity for each occurrence of an accident.

One quality inherent in either aspect is that of uncertainty. There must be doubt as to the potential outcomes on an activity. A person jumping off the Empire State Building is not taking a risk--as the outcomes are fairly certain. . . at least objectively. However, subjectively such an individual may perceive the activity as risky. . . if for some reason they believe they may survive the leap. As Carney has observed " . . . our perception of risk often seems curiously out of line with the objective risks."[39]

The subjective nature of risk perception may help to explain why some activities like rock climbing are considered "highly risky" by some and not risky by others. One climber notes: "Climbing may be less dangerous than walking down the street, because I haven't got control over the latter; there are more variables that can't be calculated."[40]

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[38] Jessie Barnard, "The Eudaemonists" in Samuel Klausner, ed., Why Man Takes Chances (Garden City, New York: Anchor Books, 1968), p. 8.

[39] R.E. Carney, ed. Risk-Taking Behavior (Springfield, Ill.: Charles C. Thomas, 1971), p. 30.

In terms of perception and evaluation then what might be considered the optimal amount of risk for a given individual?

> Reasonable versus unreasonable risk can be concisely and accurately summarized by the term: calculated risk. This concept suggests that the amount of risk chosen by an individual is related to the perceived worth of a particular type of behavior.[41]

The perception of the quality "risk" in a particular situation may affect a person's involvement in the situation in four ways:

1. as an element of strategy
2. as a consideration relative to others
3. as a consideration of one's own reputation, and
4. as a consideration of the social value placed upon risky behavior.[42]

Although the concepts of risk and stress are on the surface quite similar there are clear distinctions:

> The essential difference between risk and stress lies both in the locus of the phenomena and the probability element. Stress is an internal reaction to a stimulus. Risk is a perceived characteristic of the stimulus which is a function of the existence of multiple possible outcomes. Risk and stress are nevertheless related in that stress may be a reaction to the presence of perceived risk in a situation or behavior.[43]

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[40] Mihalyi Csikszentmihalyi, Beyond Boredom and Anxiety (San Francisco: Jossey-Bass Publishers, 1975), p. 84.

[41] Neimand, op. cit., p. 7.

[42] Ibid., p. 6.

[43] Ibid.

Stress-Seeking and Risk-Taking

Stress has been defined as an outcome of a perceived departure from optimal conditions. Risk has been defined as an element of that departure that includes some degree of perceived uncertainty. Not all stress inducing situations include risk-taking. Not all risk-taking induces stress.[44]

Individuals may become stress-seekers in an attempt to pursue conditions which they consciously or unconsciously believe will result in an optimum state of personal functioning.[45] Stress-seeking thus defines a general behavior or behavioral pattern since it includes actions that include certain as well as uncertain potential outcomes. Risk-taking may be defined as a particular form of stress-seeking where the outcomes contain elements of uncertainty. In addition, risk-taking implies the acceptance of prevailing conditions.

Both stress-seeking and risk-taking imply an active pursuit of a particular kind of situation or activity. Can stress seeking or risk-taking be defined therefore as a general motive for behavior? Samuel Klausner and others have postulated yes.[46] However, psychologist Slovic after investigation of the results of a number of studies on risk-taking concluded that there are no general risk-taking tendencies. He suggests instead that risk taking behaviors may be situation-specific. That is to say, individuals would decide an appropriate response on a case by case basis.[47] A closer look reveals that a distinction should be made between a tendency to take situation specific calculated risks as a tendency to assume any risks at any time. Research (including Klausner) shows that the former does exist, the latter does not.

---

[44] That is to say if an individual does not perceive the risk in a situation then no stress is induced. However, the objective risks may be high and if perceived would indeed produce stress. Thus, conscious risk-taking would almost always produce stress.

[45] Neimand, op. cit., p. 8.

[46] Samuel Klausner, et al., "The Intermingling of Pain and Pleasure: The Stress-Seeking Personality in its Social Context" in Why Men Take Chances (Garden City, New York: Anchor Books, 1968), p. 137.

In another summary of risk-taking studies the following generalities were found.[48]

1. Groups tend to make riskier decisions than individuals (Risky-Shift phenomenon).
2. Risk may be a cultural value that is considered a desirable trait.
3. An individual's willingness to take risks may depend on the degree to which he/she is attracted to the bet.
4. Social attitudes may be useful in predicting individual risk-taking behavior.
5. Positive correlations have been found to exist among measures of risk-taking and (1) authoritarianism and (2) belief in luck.
6. Risk-taking propensity declines with increases in an individual's age.
7. Individuals scoring high on risk-taking propensity are more willing to change jobs than individuals scoring average or low.
8. Males tend to select moderate risk levels while females tend to select either high or low risk alternatives; indicating that males tend to make more reasonable selections, or calculated risks. Females, on the other hand, by selecting unreasonably risky options, are actually eliminating the probabilistic element and thereby are making more conservative judgments.[49]
9. Self-esteem as a variable can be a significant factor in predicting risk-taking behavior--high self esteemers would demonstrate their self-assuredness by being more risky.[50]

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[47] P. Slovic, "Convergent Validation of Risk-Taking Measures" Journal of Abnormal and Social Psychology, Vol. 65, 1962, pp. 68-71.

[48] Gordon Rith, A Study of Relationships Among Athletic Experience, Risk Taking and Interpersonal Behaviors of Public Recreation Administrators (University of Iowa: Published Doctor of Recreation Dissertation, July, 1973), pp. 22-29.

[49] Neimand, op. cit., p. 10.

[50] Ibid.

10. Increased exposure to and understanding of an activity or situation leads to the attenuation of an individual's perception of the types or degree of risk involved in an activity or situation.[51]

Beyond the tightly woven web of the academic/scientific investigation into risk-taking behavior is a widespread intuitive acknowledgement by many that risk-taking (i.e., adventure) is important for enhancing the quality of life.

> A heart full of courage and cheerfulness needs a little danger from time to time, or the world gets unbearable. (Friedrich Nietzsche)[52]
>
> A certain amount of danger is important to the quality of life. (Charles Lindbergh)[53]
>
> Man struggles toward the enjoyment of Nirvana; yet to relax in Nirvana would be to allow his muscles to atrophy, and he would lose his ability to enjoy it. Thousands of years of adaptation have produced the need to seek stress. But more, in seeking stress he must risk that which he really possesses. (Kenneth Burke)[54]
>
> Whom have we conquered? None but ourselves. Have we won a kingdom? No--and yes. We have achieved an ultimate satisfaction, fulfilled a destiny. To struggle and to understand, never this last without the other. (George Mallory, speaking of climbing Mt. Everest)[55]
>
> A creative man must court sickness, failure or insanity. (Erik Erikson)[56]

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[51] Neimand, op. cit., p. 13.

[52] Rudolf Flesch, The Book of Unusual Quotations (New York: Harper and Row, 1957), p. 201.

[53] Charles Houston, "The Last Blue Mountain" in Samuel Klausner, ed., Why Man Takes Chances (Garden City, New York: Anchor Books, 1968), p. 56.

[54] Kenneth Burke, "On Stress, Its Seeking" in Samuel Klausner, ed., Why Man Takes Chances (Garden City, New York: Anchor Books, 1968), p. 74.

[55] Houston, op. cit., p. 58.

[56] Erik Erikson, Young Man Luther (New York: W.W. Norton & Co., Inc., 1962), p. 46.

> A life-achieving culture requires a reasonably high number of stress-seeking persons. (Samuel Klausner)[57]

> The classic reason for climbing a mountain is supposedly 'because it is there.' I feel that the answer should be 'because it makes me more aware that I am here.'" (Jack Metcalfe)[58]

> We're short of heroes these days. Too often, those who might have dared greatly have traded risk for the fully insured, fully employed, fully smothered daily existence. Hungry for life, our children watch us and wonder what it's all about. There is no challenge big enough for them, no vision to run toward eagerly, no philosophy to give fire to their living, no fierce joy to give sense to their dying. But they listened to Willi. 'Death,' he told them, 'is not too great a price to pay for a life fully lived.' (Phyllis Milestish, speaking on the death of Willi Unsoeld)[59]

These thoughts give a myriad of encouragements for potential "adventurers" or risk-takers. They also indicate that there are many potential explanations for the concept of adventuring. For example, psychologist Robert White suggested that *animals*, including man, enjoy challenge and seek activities of moderate uncertainty.[60] Sociologist Gary Hamilton suggests that adventurism as a type of risk behavior, is a form of social action.[61] Pennsylvania State University researcher Jessie Bernard postulates that eudaemonism (happy spirit) may be the basis for adventuring.[62] Theodore Roosevelt's famous speech of "The Strenuous Life" displayed great zeal for a life of adventure. Medical doctor Charles Houston and professor Seymour Epstein argue that the quest for mastery of fear is the prime motivation of adventurers.[63,64] Lastly, Csikszentmihalyi writes, ". . . when games involve risk, as in mountain climbing or gambling, the usual explanations given are that the activity is enjoyed because of a masochistic release from guilt about sexuality and aggression."[65]

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[57] Klausner, op. cit., p. 194.

[58] Jack Metcalfe, "Risk Taking for Prospective Teachers" *Journal of Outdoor Education*, Vol. 6, No. 3, 1972, p. 11.

[59] Morash T. Meier and G. Welton, *High Adventure Outdoor Pursuits* (Salt Lake City, Utah: Brighton Publishing Co., 1980), p. vi.

[60] Robert White, "Motivation Reconsidered: The Concept of Competence" *Psychology Review*, Vol. 66, September, 1959, pp. 297-330.

[61] Gary Hamilton, "The Structural Sources of Adventurism: The Case of the California Gold Rush" *American Journal of Sociology*, Vol. 83, No. 6, May, 1978, p. 1466.

[62] Barnard, op. cit., p. 6.

Should risk-takers/stress-seekers be considered rational beings? Klausner suggests that "Stress seeking is a species of the genus arousal-seeking."[66] However, he further suggests that stress-seekers are also highly rational (and a bit egocentric).[67] The general characteristic of such people are: 1. their behavior is carefully planned; 2. they are responsive to internal imperatives, and 3. they return again and again to stress situations.[68] Control of the situation appears to be critically important for the risk-taker. As Houston explains: ". . . danger from a situation beyond his control (a climber's) is abhorred; that is a test of fate, not of capacity."[69]

This notion of control of the experience ties into the original supposition of this paper that risk-taking is a form of stress-seeking to

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[63] Houston, op. cit., p. 49.

[64] Seymour Epstein in Blythe Holbrooke, "Adventure and Risk Sports" Vogue, September, 1980, p. 160.

[65] Csikszentmihalyi, op. cit., p. 7.

[66] Klausner, op. cit., p. 139.

[67] Ibid., p. 136.

[68] Ibid., p. 143.

[69] Houston, op. cit., p. 52.

obtain an "optimal state of functioning." Without the experience of control (perhaps pushed to its limit) there may not be any hope for a positive outcome (i.e., positive heterostatis). Even if one argues that pure and simple thrill-seeking is the basis for risk-taking behaviors there is the element of control. Michael Balint defined the fundamental element of thrills as the ". . . mixture of fear, pleasure, and confident hope in the face of external danger. . . ."[70] Confident hope is born out of a feeling of control.

Csikszentmihalyi in his widely acclaimed study on the experience of play in work and games identified a process/phenomena he termed the "flow-experience."[71] His study included surgeons, rock climbers, chess players and others. Csikszentmihalyi based his work on a concept describing intrinsic motivation called "funktionlust." "Funktionlust" is the pleasurable sensation that an organism experiences when it is functioning according to its physical and sensory potential. His study concluded:

> . . . that people who enjoy what they are doing enter a state of 'flow': they concentrate their attention on a limited stimulus field, forget personal problems, lose their sense of time and of themselves, feel competent and in control, and have a sense of harmony and union with their surroundings. . . a 'flow activity' is an activity that makes flow experiences possible. Such an activity provides opportunities for action which match a person's skill, limits the perceptual field, excludes irrelevant stimuli, contains clear goals and adequate means for reaching them, and gives clear and consistent feedback to the actor.[72]

He further suggests that risk (uncertainty) and danger are critical to the flow experience. Danger (physical danger) is not seen as an end in itself, rather, it produces a centering of attention as it heightens concentration. The risk that he describes is a "calculated risk" of the kind described earlier in this paper. The flow experience also demands that the risk be both voluntarily assumed and of an appropriate level. An appropriate level means that a feeling of control is always present in the experience. It is this feeling of control which explains why risk-takers (i.e., rock climbers, parachutists, et al.) often consider their activity less risky than some everyday common experiences. The objective correlates of the feelings of control are: experience, training, precaution, anticipation, protection, judgment, responsibility, and evaluation. One rock climber described it this way:

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[70] Michael Balint, Thrills and Regressions (New York: International Universities Press, Inc., 1959), p. 23.

[71] Csikszentmihalyi, loc. cit.

[72] Ibid., p. 182.

> There's risk, to be sure, but it's a highly calculated risk, much more so than driving a car. You relate the risk involved to your own experience and that suggests the number and kinds of precautions you must take. If you do, you'll feel in control. Beyond that, there is always the unknown which simply is there and nothing can be done about it, so you can't worry about it. Control is just a feeling, but it's a very accurate feeling. That's what climbing depends on, how accurate that analysis is.[73]

Like Klausner's stress-seekers, those who partake in the flow experience find it addicting and return again and again for more.[74]

The question raised by many who have been risk takers (e.g., climbers) for a while and have experienced the death of friends and/or other risk-takers is: "Is it worth it?" Does the striving for high-risk activities and pushing one's limitations wear thin eventually? Research shows risk-taking propensities are lowered with age. David Roberts, mountaineer and author, recently wrote of his "moments of doubt."[75]

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[73] Ibid., p. 84.

[74] Ibid., p. 138.

[75] David Roberts, "Moments of Doubt" Outside, Vol. 5, No. 6, Dec./Jan., 1981, p. 28.

Former race car driver Dan Gerber sums it up:

> I still find spice in risk. It heightens my perceptions because it enforces an absolute concentration on the moment, as opposed to the ennui that can pervade any endeavor in which there's nothing important at stake. But now I've come to admire others, more necessary though no less heroic, kinds of risk taking: the risk an artist must take in his work, doing what he isn't sure he can do, the risks of friendship, of marriage, of commitment of any kind.[76]

This question will be explored further in Chapter 3.

Dr. Sol Rosenthal, a research physician at the University of Illinois medical school, has formulated a bio-chemical explanation of risk-taking behavior. His theory is based on the concepts he's termed: "Risk Exercise" (RE) and "The Risk Exercise response."[77] These concepts are quite similar to those expressed by Csikzentmihalyi.

Risk exercise are those physical experiences associated with "well-calculated" risks. He noted that:

> Physical invigoration and mental euphoria were noted frequently after RE sports and only occasionally in non-RE sports. Following an RE experience, there is often an increase in self-confidence, courage, and motivation that may last for extended periods of time.[78]

Like the concept of flow "one of the assumptions of RE is that the risk taker has the skills to match or overcome the risk. Otherwise terror simply overwhelms the RE response."[79]

Rosenthal's work validates the notions of selective perceptions and that risk-taking behavior is situation-specific. "There is a risk exercise for everyone. And what is a no-risk exercise for one person may evoke a strong RE response in another."[80]

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[76] Dan Gerber, "Revelation at Riverside" Outside, Vol. 5, No. 6, Dec./Jan., 1981, p. 44.

[77] Sol Roy Rosenthal, "Risk Exercise and the Physically Handicapped" Rehabilitation Literature, Vol. 36, No. 5, May, 1975, pp. 144-149.

[78] Ibid., p. 144.

[79] William Furlong, "Doctor Danger" Outside, Vol. 5, No. 4, Dec./Jan., 1981, p. 44.

Dr. Rosenthal believes that risk-taking is not only a personal quest, but also a cultural imperative with deep bio-chemical genetic bases.

> . . . risk exercise on a physical and mental basis is necessary for our daily well-being. It is postulated that our ancestors experienced daily physical and mental risks in foraging for food and maintaining the integrity of their domain against intruders. Physical risk has been gradually eliminated from man's daily life, but the need for action and risk remains in man's genes, so to speak. The stimuli resulting from risk exercise have become less and less intense so that it is more than likely that a deficiency of some hormome or chemical is ever-present in modern man. This leads to diminished vigor, motivation, and courage; man is operating below his capacity. It is believed that risk exercise may more or less compensate for this deficiency.[81]

In this section of the paper the author has focused on an explanation of motivations and controlling factors of risk-taking and stress seeking behaviors. Also insight was gleaned as to what kind of risk is pursued. Important variables like control, calculated risk, appropriate levels, selective perception were discussed. The question remains: Is this a widespread and/or growing phenomenon?

The Risk Revolution

> Some years ago a cynic observed that most Americans experience more thrills and excitement traveling to a recreation site than while there engaged in recreation pursuits. For many, this is still probably true, but for increasing numbers, excitement escalates at the end of the journey. They seek thrilling

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[80] Ibid., p. 94.

[81] Rosenthal, op. cit., pp. 148-149.

and sometimes dangerous adventure on land, air, water, snow, and ice. They are part of the Risk Revolution.[82]

The term "Risk Revolution" is a phrase coined by Diane Dunn and John Gulbis in 1976. It accurately and concisely defines what appears to be a movement of vast numbers toward activities that involve the element of physical risk. Such activities include: camping, hiking, canoeing, kayaking, bicycling, rock climbing, rapelling, snowshoeing, orienteering, mountaineering, expeditioning, treking, cross-country skiing, spelunking, parachuting, hang gliding, ballooning, motorcycling, etc.

Evidence of the movement is manifested by the following:

1. Between 1971 and 1973 the Southern California Hang Glider association increased from 25 to 4,000 members, by 1975 there were an estimated 25,000 hang glider enthusiasts nationwide.[83]

2. Hot air balloon pilots registered by the Balloon Federation of America increased tenfold between 1970 and 1974.[84]

3. Licensed glider pilots, according to the Soaring Society of America, increased from 5,000 to 15,000 between 1963 and 1973.[85]

4. Rock climbing popularity has increased:
The National Park Service and the National Forest Service predicted an increase of 500 - 1,000 percent in the numbers of ascents of Mt. Whitney in California between 1964 and 1970.[86]

The number of climbers in the Grand Teton mountain range doubled between 1963 and 1972.[87]

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[82] Dunn, op. cit., p. 12.

[83] Ibid., p. 12.

[84] Ibid.

[85] Ibid.

[86] "Trash Plagues Mount Whitney as Climbers Go into Thousands" New York Times, August 30, 1970, p. 19.

[87] J. Wilford, "Mountain Climbers Litter Trail" New York Times, September 5, 1972, p. 34.

Royal Robbins, a noted climber, has pointed out that the extreme increase in numbers of climbers have led to the development of new and more destructive methods of climbing.[88]

5. The number of estimated cross-country skiers in the U.S. rose from 2,000 to 500,000 between 1964 and 1974.[89]

6. The number of bikepaths throughout the U.S. has grown tremendously because more and more people are cycling.[90]

7. Statistics from national parks show a boom in hiking and backpacking in all parts of the country.[91]

8. The deterioration of many natural environments has stimulated a growing number of school systems to initiate programs in outdoor recreation to promote wise use of these environments.[92]

9. Specialized books that focus on these activities are appearmore frequently.[93]

10. Sales of equipment for these activities have boomed, and new stores are opening to meet consumer demands.[94]

11. An increasing number of schools and programs offer experiences in wilderness activities, for example, Outward Bound programs and Project U.S.E. M.A.I.N.E.[95]

12. More outdoor camping and recreational facilities are available (than in previous years).[96]

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[88] Royal Robbins, Advanced Rockcraft (Glendale, California: La Siesta Press, 1973), p. 7.

[89] M. Brady and L. Skjemstad, Ski Cross-Country (New York: Dial Press, 1974), p. 206.

[90] Paul Darst and George Armstrong, Outdoor Adventure Activities for School and Recreation Programs (Minneapolis, Minnesota: Burgess Publishing Company, 1980), p. 2.

[91] Ibid.

[92] Ibid.

[93] Ibid.

[94] Ibid.

[95] Ibid.

[96] Ibid.

13. Companies are beginning to recognize the value of these pursuits for their employees; for example, some corporations send their executives to Outward Bound Schools.[97]

14. New periodicals have blossomed that focus on the activities of the risk revolution, e.g., Backpacker, Back Country, Cycling, Wilderness Camping, Mountain, Nordic World, Bike World, Down River, Camping Journal, Outdoor Life, Outside, Summit, Off Belay, and Backpacking Journal, to name a few.

15. Universities and colleges are becoming sensitive to their students' interest in these activities.[98]

16. A survey of trends in basic college physical education programs shows an increase in emphasis on outdoor adventure activities[99] and such programs usually set curricular trends on the basis of the perceived interests of society.[100]

17. A steady growth in professional groups of individuals involved in risk activities, e.g., Association for Experiential Education of Denver and Wilderness Education Association, Alta, Wyoming.

That the "Risk Revolution" is here is undisputed. A closer look indicates that the risk-taking activity involved takes place outdoors primarily--but not exclusively. A number of recent studies have focused on these "risk-recreation" participants. Dr. Stewart D. Allen at Montana State University completed an extensive review of the recent studies and found the following:[101]

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[97] Ibid.

[98] Peter Donnelly, "Vertigo in America: A Social Comment" Quest, No. 27, Winter, 1977, p. 106.

[99] Joseph Oxendine, "Status of General Instruction Programs of Physical Education in Four-Year Colleges and Universities: 1971-72" JOHPER, No. 43, March, 1972, p. 26.

[100] Daryl Siedentop, Physical Education: Introductory Analysis, 2nd ed., (Dubuque, Iowa: William C. Brown Company), 1976, pp. 39-40.

[101] Stewart Allen, "Risk Recreation: A Literature Review and Conceptual Model" in Joel Meier, Talmage Morash, George Welton, eds., High Adventure Outdoor Pursuits (Salt Lake City, Utah: Brighton Publishing Company, 1980), pp. 52-81.

1. A clear or convergent perspective on recreational risk-taking has not yet emerged.[102]
2. It is difficult to define any given activity as 'risk-oriented' because of the individualistic nature of risk perception.
3. Risk-recreation participants tend to be from a homogenous group, exhibiting common personality traits and seeking common outcomes.
4. Risk-recreation participants exhibit higher ischemic pain tolerance than nonparticipants.
5. In a review of some 60 studies, Iida (1976) concluded that positive changes in self-esteem and self-confidence were gained by participants in a variety of outdoor adventure programs.[103]
6. Few researchers have provided demographic profiles of their risk-taking subjects.[104]
7. Higher education has been found to be positively correlated to wilderness use.
8. Although the personality profiles of risk-recreation participants exhibit a fair amount of consistency, the research does not suggest which traits exert the greatest influence as to factors antecedent to involvement. Sensation-seeking and sex-role orientation, two important variables, have not been adequately addressed in the literature.[105]
9. Perceived ability and physical fitness are prerequisites to participate in risk recreation.
10. Controllable risk represents 'challenge,' uncontrollable risk is 'danger.' Controllable risk is sought, uncontrollable risk is abhorred.
11. Participants equal in ability and experience may exhibit vastly different styles and levels of risk-taking within a specific recreation activity.[106]

Because the "risk- revolution" is here Dr. Allen concludes that continued research is needed.

While much research continues on the risk-revolution a basic question remains: What are the reasons that the revolution is taking place now as opposed to previous times?

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[102] Ibid., p. 52.

[103] Ibid., p. 54.

[104] Ibid., p. 55.

[105] Ibid., p. 58.

[106] Ibid., p. 76.

Klausner has noted: "The stress-seeker is cheered on and legitimated by prevailing philosophies, myths and ethical norms."[107] Fiction literature has always dramatized the stress-seeker and the risk-taker. It is generally accepted that the risk-taker is also the decision-maker. Heroes also tend to be decision makers, as are all leaders. The art and science of leadership, administration, and managers has been refined over the years. Part of this refinement has included the construction of formulas for decision-making that attempt to minimize risk-taking. For example, the notion of "cost-effective" accounting is now a widespread accepted concept in public and private enterprise. The risk-revolution may be a backlash to this "cost-effective" way of viewing leadership, where decisions are made by formulas, not leaders. The affluence of our age may also be a factor as underdeveloped countries are not experiencing a risk revolution.

Allan Boyer expresses another theory found in the thoughts of many adventure educators. "In our modern society much of the risk and uncertainty has been eliminated, leaving crime as the last frontier for the adventurous. Risk is a genuine need for people of all ages. Accepting the challenge is the first step to a healthy self-concept."[108] Boyer's view is similar to that given by Rosenthal, Klausner, and others.

The purpose of this section on the risk revolution was to demonstrate the widespread acceptance and belief in the efficacy of adventure activities. Of interest is the role played by the educational movement started by Kurt Hahn. As Richard Tapply suggests: "Most of these high-adventure programs have their roots in the international Outward Bound movement."[109] This may suggest that Outward Bound alias Adventure Education alias experiential educational has tapped into an area where there is a genuine need and market for a particular kind of curriculum. The following will explore this hypothesis further.

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[107] Klausner, op. cit., p. 158.

[108] Allan Boyer, "Initiative Activities: A Good Risk" Phi Delta Kappan, February, 1980, p. 422.

The Role of Risk in Adventure Education

At the beginning of this chapter experiential education was defined as an approach to learning that included the cognitive, psychomotor and affective domains. Adventure Education is an example of such. Outward Bound (the classic example) is no longer simply the name of a school. Rather it is also considered to be a process of learning.[110]

The broad based goals of such programming include the education of the whole person[111] including the affective domain. Psychologist Alschuler points out: "Outward Bound is one of the nation's prominent centers of 'Affective Education'."[112] Intangible goals such as compassion, self-confidence, cooperation, self-discovery, emotional security, and human renewal can be seen in much of the literature on adventure education.[113]

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[109] Richard Tapply, "High Adventure: Confronting the Essentials" Parks and Recreation, Vol. 12, No. 6, June, 1977, p. 26.

[110] Victor Walsh and Gerald [illegible]ins, The Exploration of the Outward Bound Process (Denver, Colorado: Outward Bound School, 1976), p. 1.

[111] Hermann Rohrs, "The Educational Thought of Kurt Hahn" in Hermann Rohrs, ed., Kurt Hahn (London: Routledge & Kegan Paul Ltd., 1970), p. 123.

[112] Alfred Alschuler, "Psychological Education" Journal of Humanistic Psychology, Vol. 9, Spring, 1969, p. 1.

[113] Darst, op. cit., p. 10.

Other goals are summarized nicely by Leslie Tompkins:

> Many feel that adventure programs supply the needed emotional outlets for youth who might otherwise pursue less desirable activities--that the need for self-testing can be satisfied through adventure programs. Other goals sought by adventure programs are improvement in self-awareness, self-concept, judgment, decision-making, compassion, increased potential, sensory perception, awareness of and respect for individual differences, endurance, cardio-vascular improvement, strength, coordination, skills and an understanding of and cooperation with nature--a motivation to learn--in and out of the formal educational system.[114]

Providing a "real" experience is an often used justification for programming:

> Many young people are almost completely disassociated from real physical challenges or emotional risks, which are a factor in the appeal of crime to many students. A real experience is needed, real contact with one's environment.[115]

> While safety is a major concern of Outward Bound, the dangers associated with the wilderness are real. The risks are acceptable, for we believe that experiential learning demands real consequences.[116]

Herbertism is a form of physical fitness, developed by French educator George Herbert. Basically, it is an adventure based obstacle course constructed in a forested area. A teaching manual describing this form of experiential education states:

> Without refuting the physical and health benefits of Herbertism, one can say that its greater contributions are in the areas of self-confidence, movement-expression and understanding one's own capacity. A teacher or group leader wishing to develop these traits in his children can do it by exposing them to real-life experiences. Herbertism is real.[117]

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[114] Ibid.

[115] Boyer, op. cit., p. 422.

[116] Outward Bound, Inc., Literature (384 Field Point Road, Greenwich, Connecticut 06830), 1980.

[117] Claude Cousineau, Herbertism (Toronto, Ontario: Ministry of Culture and Recreation, 1976), p. 94.

A "real-life experience" as used above includes the risk that a potential outcome is physical injury or death. A deeper look would expose what could be called the adventure-educators' theory of self-development.

Proponents of this theory relate self-systems to stress, holding that the development of self-concepts require that one experience stress.

> To accomplish this aim, adventure education programs provide experiences of varying degrees of stress: they offer the individual opportunities to solve problems and to reevaluate the self in relation to the environment, peers, and teachers, and thus to define one's role in this alternative style of living.[118]

The discussion earlier in this chapter concerning the role of risk in stress-inducing activities/situations becomes pertinent. Perceived risk can induce stress. By varying the degree of risk (perceived) educators can vary the degree of stress and influence the development of self-concept. Corky Moore suggested that "Stress is intentionally increased to produce heterostatis at Outward Bound, a fact that makes it a unique educational institution."[119]

Adventure programs also provide clear positive experiences of coping with stress.[120] In this sense, adventure based programs can act as stress-management experiences. The work of Rosenthal and Csikszentmihalyi substantiate this. This process occurs since adventure programs

> . . . generally structure activities in a sequence of progressive difficulty in order that success may be achieved both by building upon previous successes and by developing positive feelings and confidence through skill acquisition.[121]

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[118] Wood, op. cit., p. 6.

[119] Corky Moore, Stress in Education (Unpublished paper, Mankato State University, Mankato, MN 56001, June, 1978), p. 1.

[120] Wood, op. cit., p. 7.

[121] Ibid.

Both the flow experience and RE response and their antecedents (i.e., voluntary appropriate stress, sense of control, et al.) are clearly included in most adventure-based curriculums.

Michael Jeneid argues that stress-management experience is wholly transferrable to times when the adventure training is over.

> To survive you should be aware that your brain cannot separate the recording of a stress experienced in simulated conditions from one similar which came to you through chance. It follows that the outcome of a training experience can be banked upon and drawn upon; because it's transferrable. It is transferrable just as music is transposable.[122]

Research by Martin Seligman suggests support for Jeneid's theory. Seligman's research indicates that the experience of overcoming overwhelming stress makes a creature less susceptible to stress in the future.[123] Further support is found in the work by Yale's social psychologist Irving Janis in his theories about "Stress Inoculation" which is a technique that includes: 1) anticipating stress, 2) seeking appropriate information in advance, and 3) seeking appropriate alternatives in advance.[124]

Another researcher in an extensive review of recent studies on stress found that physical fitness training acted as a mitigating factor in stress responses.[125] Generally physical fitness training (as a main focus or by-product of other activities) is included in all adventure based curriculums.

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[122] Michael Jeneid, Human Limitations Judgment and Survival (Boston: Boston University, 1972), p. 26.

[123] Martin Seligman, Helplessness (San Francisco: W.H. Freeman, 1975), pp. 56-59.

[124] Irving Janis, Psychological Stress (New York: Wiley, 1958), pp. 3[illegible]4-378.

[125] Shawn Elliott, The Effect of a Physical Fitness Training Program on the Level of Stress in Firefighters at Rest and Stress Producing States (University of Oklahoma, Norman, Oklahoma: Master's Thesis, 1977), pp. 11-20.

Last, adventure education frequently works with the concept of contrast. "Dunk them and dry them" was the educational watchword given by Kurt Hahn. The work of Selye suggests that prolonged stress is the most debilitating.[126] The type of experience adventure programming provides is high stress followed by complete relief. This may be the stress inoculation process that Janis formulated.

Besides providing a potential stress management technique, adventure-educators may use risk (and the accompanying stress) as a tool to attain other goals, for example, team building.

> The role of stress, besides being vital to improving self-image and self-confidence, is also a significant factor in bringing a group of individuals together welding them into a responsible and concerned community.[127]

Richard Emerson confirms the efficacy of risk and stress for providing a catalyst for team building. After his study of mountaineers on Mt. Everest he postulated that sustained group-striving is a function of uncertainty about goal outcomes.[128]

Jack Metcalfe suggested that the development of empathy and sympathy is one result of programming that involves physical risks.[129] Don Kesseleim further suggested three additional roles for the stress caused by risk-taking: 1) it can stimulate a desire for a person to change (internal and external), 2) act as a motivator for internalizing new behaviors, 3) act as self-feedback to ascertain how well new behavior and attitudes have been internalized.[130]

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[126] Selye, Stress Without Distress, loc. cit.

[127] Joseph Schulze, An Analysis of the Impact of Outward Bound on Twelve High Schools (Greenwich, Connecticut: Outward Bound, Inc., Sept. 1, 1971), p. 7.

[128] Richard Emerson, "Mount Everest: A Case Study of Communication Feedback and Sustained Group Goal-Striving" Sociometry, Sept. 29, 1966, pp. 213-227.

[129] Metcalfe, op. cit., p. 10.

What should be clear from the previous discussion is that the kind of risks utilized in adventure based programs are typified as being "controllable," "calculated," and "reasonable." Risk taking for the sake of risk taking is not condoned. Like Houston's climber, clear danger is to be avoided. Jim Hogan, the first warden of the original Outward Bound School of Aberdouey, explains this philosophy clearly:

> . . . our teaching was that a man should never expose himself to hazard until he had made a thorough assessment of the risks involved and, as fully as possible, safeguarded himself against them. It was not uncommon to meet men engaged in military training whose watchword was 'We make 'em or break 'em.' Our task was clearly to make rather than break. Boys gained in confidence and competence as they went through graded exercises. We taught that bravado and recklessness were no substitute for skill and foresight and that as far as we were concerned they were completely taboo.[131]

Tom James further clarifies this position when discussing Outward Bound's goal of fostering "achievement motivation." He states: "The tendency to set moderate achievement goals and to take calculated risks--was exemplified throughout the Outward Bound program in all of its activities."[132]

Situation-specific risk taking is encouraged--general risk taking is not. Further evidence is found in a study by Mason Davis of the University of Oregon. Davis used the Kogan and Wallach's Choice Dilemma Questionnaire on a sample of 320 (one half control, one half experimental pre- and post-test design) in attempting to determine if an individual's general risk-taking propensity is influenced by attendance at a Northwest Outward Bound standard course. He concluded that it did not.[133]

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[130] Don Kesselheim, "A Rational for Outdoor Activity as Experiential Education: The Reason for Freezin" (Amherst, Mass.: University of Massachusetts School of Education, 1974), p. 12.

[131] Jim Hogan, Impelled into Experiences (Wakefield, Yorkshire: Educational Production Ltd., 1968), p. 116.

[132] Thomas James, Education at the Edge (Denver, Colorado: Colorado Outward Bound School, 1980), p. 14.

Can calculated risk-taking be taught? Louise Berman suggests it can:

> Decision making is a risk-taking venture. Risk taking, like decision making is learned. The individual who has risked much with success in his decision making will probably anticipate future key decisions. The individual who has been unhappy about past decisions may be hesitant and move toward decisionless or little creativity in decisions.[134]

Berman's concept sounds significantly similar to Janis' "Stress Inoculation." Richard Byrd in his book A Guide to Personal Risk Taking[135] confirms Berman's assumption--as does medical doctor David Viscott in his book Risking.[136]

The question arises as to whether the risks described here are objective risks or subjective risks. The answer is neither one nor the other. For the educational goals explained above to be attained the risks must be perceived to be high (but acceptable, appropriate, level controllable/calculatable, and voluntarily assumed). The objective risks must not be too high or else injury or death may result. Schulze explains the distinction: ". . . many of the stress activities represent little physical risk (objective), but all have components of drama and high psychological risk (subjective)."[137]

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[133] Mason Davis, The Effects of Outward Bound Training on Individuals' Propensity for Risk Taking (University of Oregon: Unpublished Dissertation, Dissertation Abstracts International, July-August, 1976, V.37 B), pp. 436-8.

[134] Louise Berman, New Priorities in the Curriculum (Columbus, Ohio: C.E. Merrill, 1968), p. 109.

[135] Richard Byrd, A Guide to Personal Risk Taking (New York: AMACOM, 1974), pp. 135-140.

[136] David Viscott, Risking (New York: Simon & Schuster, 1977), pp. 17-23.

This distinction is absolutely critical to the function, purpose, and future of adventure based experiential learning. The thrust, predominate focus, and mission of this paper is the clarification and expansion of this theme.

In this section the author discussed the role of risk in experiential learning using concepts and issues developed in earlier sections. And a prior case has been made for the utilization of risk in experiential education. Some clarification has been made as the kind (physical, social, etc.), quality (objective, subjective), and degree (optimal, calculatable, etc.) of risk that is most effective. In this chapter the author has focused primarily on physical risk-taking as opposed to other kinds such as social risk-taking. Such kinds of risk are inherent in an adventure program as seen in recent literature published by Outward Bound, Inc.

> Often underestimated, however, are the social risks involved, the doing that it takes to care about someone else and the vulnerability all of us feel when we are moving precariously between the known and the unknown--in short, when we are growing.[138]

There are also other elements in an adventure based program that produce stress besides risk (e.g., an arduous hike). Yet, physical risk-taking clearly plays a central role in adventure education. Precisely because of the element of physical risk "Adventure is potentially the most dynamic form of education currently available."[139]

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[137] Schulze, op. cit., p. 9.

[138] Outward Bound Literature, loc. cit.

In the next chapter the author will further delineate between subjective and objective risk, discuss the obligations owed to society and the individual learner by adventure education, explore the paradox of safety versus risk and introduce the concept of risk management.

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[139] Colin Mortlock, Adventure Education (Cumbria, United Kingdom: Old Fisherbeck, 1978), p. 5.

Chapter 3

THE MANAGEMENT OF RISK: A PROCESS

In 1962 the first Outward Bound school was established in Colorado. The school used stress/challenge and outdoor adventure in its curriculum to facilitate self-discovery, build "character," and develop positive attitudes toward achievement. This form of affective education found a receptive market in the tumultuous 1960's and the "self-development" 1970's. The Colorado Outward Bound school started an educational movement of unforeseen proportions. By 1981 hundreds of Outward Bound or adapted programs existed--either privately or in conjunction with high schools, colleges, and universities. The charisma and mystique of the early programs were slowly refined into definitive educational theories and processes. Experiential education had come of age--and to a point of crisis.

The crisis was precipitated by the fact that it was the only form of education where students could die on a regular basis. Participants in a stress/challenge adventure program inherently confront hazards and perils not found in the classroom nor in everyday pursuits. During the last ten years these programs have experienced fatalities, law suits and intense inspection by the mass media. The dilemma of risk versus safety became clear. Without genuine adventure and its inherent risk, Outward Bound-type programs would cease to provide powerful learning experiences. Yet public opinion quickly turns against programs that experience even an occasional loss of life. Programs would founder from lack of enrollment.

At the 1980 national conference on experiential education ten resolutions on risk management were introduced and affirmed by the assembly (see Appendix 1). The dilemma of safety versus risk is the critical state-of-the-art issue in the experiential education movement. Yet, a wholistic analysis of the many interlocking variables involved in risk management and programming does not exist.

In the last chapter a case was made for the inclusion of physical risk-taking in an educational setting. In this chapter the author will expand on that analysis and discuss further the implications of subjective versus objective risk assessment on adventure education. Such discussion will lead to a clarification of the goals, objectives, and obligations of adventure-education. What arises from such a clarification is the paradox of safety versus risk. Such a paradox forms the justification. This chapter will introduce such a concept.

Subjective vs. Objective Risk: Assessed and Assumed

In the first chapter a distinction was made between speculative versus pure risk. Speculative risk occurs when there is a potential "gain" (as well as loss) in an assumption of a risk. "Pure" risk occurs when there are only the potential outcomes of loss or no loss. Voluntary risk-taking and stress-seeking as described by Klausner, Rosenthal, Csikszentmihalyi, et al., is clearly speculative in nature. Individuals take a calculated risk in hope of some gain (frequently intangible in nature).

Also, the distinction was made between subjective (perceived) risk and objective (statistically measured). What became clear from the literature is that the potential educational goals of risk-taking were realized from confrontations with perceived risk and not necessarily from objective risks. A novice (to a particular kind of risk-taking activity) may or may not know what the real objective dangers (i.e., hazards and perils) that influence the objective risk of a particular situation. In such a case the perceived risks may be low while the objective risks are actually high. The opposite may also be the case.

A somewhat paradoxical point needs to be made here. Pure objective risks are hard to measure in any given adventure situation. Few risks fall into this case.[140] The variables are intensely complex (weather and participants and geography and equipment--skill level of members and activity. . . .). Each situation is different. An expert might calculate that hiking has produced x amount of sprains for x amount of hours of activity--a measurement of objective risk. Yet in each situation "objective risk" may be nothing more than the "calculated risk" of an expert (a recognized person with experience).[141] Such a reading may or may not be accurate and/or misleading.[142]

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[140] Raphael Kasper, "Perceptions of Risk and Their Effects on Decision Making" in Richard Schwing and Walter Albers, Jr., eds. Societal Risk Assessment: How Safe is Safe Enough (New York: Pleneum Press, 1980), p. 81.

[141] Ibid., p. 73.

[142] A tragic case in point concerns the death of three Darrow Hall (an adventure education program for delinquent youth) students and one staff in late June, 1979. The deaths occurred in an attempt to climb Kit Carson peak in the Sangre de Cristo mountain range of southern Colorado. The instructor involved had little high altitude mountaineering experience. The expedition decision to climb the peak had relied (at least partially) on an "objective" assessment of the difficultness/risks involved (in the climb) as found in the mountaineering guidebook. Another mountaineering "expert" (on the search and rescue team) who knew the area suggested that the reference guidebook underestimated the difficulty of the ascent. Reliance on the guidebook (by the expedition leader) and its "underestimating" of the risks involved were listed as a contributing factor in the accident. Missouri Division of Youth Services Report on Accidental Death of Three DYS Students and Their Instructor, August, 1979, p. 5.

Raphael Kasper of the National Academy of Science in Washington, D.C., suggests that experts may be as subject to various bias as often as non-experts are.[143] Yet, reliance on the experts is often done in the belief that they have knowledge of the objective risks in a situation.

From this discussion two questions emerge: 1) Who should be calculating the risks for an individual or group in a given situation? and 2) Does this act of calculating mandate any particular obligations on the calculator?

Goals, Objectives, and Obligations of Adventure Education

One of the implicit goals of adventure education is to teach participants the art and science of taking calculated risks.[144] Since the risks involved are frequently physical risks (injury or death) the obvious primary objective of adventure education is to protect a student from miscalculation.

> The spice of the activities (adventure) derives in part from the element of adventure and unpredictability, but adventure and unpredictability are defined by risk. Obviously, when young people are being instructed in these skills it is permissible occasionally for them to suspect that they are at risk; but it is not permissible that this suspicion be justified. The instructor can never allow his students to get into a hazardous situation.[145]

This theme of protecting students while they learn (and also _so_ they can learn) is found in virtually all instructor handbooks on adventure education.[146,147,148,149]

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[143] Kasper, op. cit., p. 79.

[144] James, op. cit., p. 15.

[145] Harold Drasdo, _Education and the Mountain Centres_ (Great Britain: Tydden Gabriel, 1972), p. 53.

Former Outward Bound instructor Kenneth Kalisch called this responsibility the "Filter system"--a role that instructors of outdoor education must assume.[150] Michael Jeneid when speaking about the advantages of adventure-education summarizes the theme nicely: "This doesn't mean you sacrifice a life for a lesson. It means you select adventurous activities in which you can control the hazards without sterilizing the learning experiences."[151]

Jeneid[152], Mortlock[153], and others have suggested that adventure education is primarily for novices. Adventure education can not and should not attempt to provide courses for the highly experienced adventurer. Jeneid explains:

> It is enough for most people to sample adventure at this level and at least begin there. Those who go further and come back with their account are different. They understand the risks and accept them. They also have a respect for detailed preparation of themselves as well as their equipment.[154]

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[146] Trip Leader's Handbook, The Colorado Rocky Mountain School, Carbondale, Colorado 81623, 1979, p. 1.

[147] The Instructor's Handbook, The North Carolina Outward Bound School, Morgantown, North Carolina 28655, 1979, p. 12.

[148] Instructor's Manual, Colorado Outward Bound School, Denver, Colorado 80203, 1976, p. ii.

[149] Colin Mortlock, Adventure Education (Cumbria, United Kingdom: Old Fisherbeck, 1978), p. 6.

[150] Kenneth Kalisch, The Role of the Instructor in the Outward Bound Process (Mankato, Minnesota: Mankato State University, Unpublished paper, May, 1979), p. 49.

[151] Jeneid, op. cit., p. 6.

[152] Ibid.

[153] Mortlock, op. cit., p. 6.

[154] Jeneid, loc. cit.

A deeper look into models of expedition leadership further clarifies that adventure-education (and other outdoor pursuit programs) sets itself up with the burden of calculating the major risks of adventuring. Two particular models are relevant here. The first model is that of the "common adventurer." This model exists when a number of friends or peers get together and join each other on a fun adventure or a holiday. In this model there is no designated "leader." Instead, all people just go together and take on the responsibilities of mounting and executing all portions of the expedition. This model of expedition leadership is most used by experienced people going to minor or moderately hazardous environments. Issues of safety are addressed by all members of the expedition, each member being responsible for drawing the line on his or her behavior/actions. In going to the mountains, everyone would look out for the dangers of avalanches and make his or her own choice to cross a potential avalanche field or not. In going scuba diving, everyone would look for the dangers of sharks and barracudas, and each person would make the decision to dive in a particular area or not. In going caving, every person would make the decision to enter a particular passage. Each individual would decide when the environment became too hazardous to him/her. Judgments of safety are left up primarily to the individual.

Another form of expedition leadership is found in the "guide service" model. The participants in this kind of expedition generally fall into two categories: 1) very inexperienced, i.e., participants, or 2) very experienced, i.e., guides, teachers. An individual with little experience in a particular area may go to an organization to seek the help of a guide, the guide being a person who can help them enter a hazardous, strange environment in a safe and positive manner. The participant under the auspices of the guide can focus on the splendor of the mountains, the thrill of the rushing white water, the unique beauty in a cave or with the mastery of personal fear without having to focus every moment on survival. Outdoor programs that take students/participants to a wilderness area inherently employ the guide/service model. Participants/students come expecting this model and pay for it. If they do not expect this model, if they wanted mainly to have the "common adventurer" model, then they could do it on their own a lot cheaper.

Generally these responsibilities are quite straightforward. The critical and sometimes fatal mistake outdoor leaders can make comes when they form a relationship with their students to the point where they, the leaders, start believing that they are involved in the "common adventurer" model of an expedition. If the novice participant believes the expedition is run under the "guide service" model and the leader believes it is run under the "common adventurer" model, judgments of safety can get lost in the shuffle and the results could be tragic.

At all times during an expedition from the beginning right to the very end, a leader must not confuse his/her role in the above models. To do so inherently risks the life and limb of other members of the group. A leader must be continually aware and aggressively active in terms of safety.

The Trip Leader's Handbook of the Colorado Rocky Mountain Schools summarizes a leader's responsibilities quite nicely:

> Wilderness adventure implies risk, but risk uncontrolled and hazard must not become the root source of adventure. The leader's role is to prepare participants, to train, and to condition them in such ways that they will deal with hazards without risk (excessive). The highest adventure and the most satisfying conclusion to the trip should be that it was

uneventful, and this despite the presence of hazard.[155]

What should be clear from the above is adventure educators provide an element of safety to an experience. Such safety does not destroy the adventure, rather it can enhance it.

> When we come to know the true meaning of safety we realize that far from taking the adventure out of life, it is the very thing that is going to help us put adventure into life.[156]

Understandably, safety training plays a critical role in adventure education.

As a corollary to protecting novice students from miscalculations and hazards in the environment the adventure educator must attempt to ensure that each individual student gets enough risk and stress, an optimal amount, to facilitate his/her self-discovery and growth. As Rosenthal has suggested that too much perceived risk will induce terror, too little will produce no reaction.[157]

These clear obligations and objectives for adventure educators suggest an ideological paradox.

The Paradox of Safety and Risk

Thomas James wrote an essay on this paradox in late April of 1980 while at the Colorado Outward Bound School. The following fall the essay was published after having been circulated among a number of adventure instructors.[158] His writing summarized the concerns of a number of Outward Bound staff:

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[155] Trip Leaders Manual, op. cit., p. 1.

[156] Boy Scouts of America in Maud VanBuren, ed., Quotations for Special Occasions (New York: The H.W.Wilson Co., 1939), p. 231.

[157] Furlong, loc. cit.

[158] Thomas James, "The Paradox of Safety and Risk" Journal of Experiential Education, Vol. 3, Fall, 1980, pp. 20-24.

> They were concerned that the program would lose its excitement, that it would cease to be the powerful learning experience it is famous for being, if it were made so safe that it lacked the spontaneity, the stress, and the hard-earned achievements of a genuine adventure. But they also recognized the difficulty nowadays of marketing any program that experiences occasional loss of life, no matter how worthy its aims. Even when it can be shown that the program could turn public opinion against it, undermining the legitimacy of outdoor adventure as a tool for personal growth. If this were to happen, Outward Bound and other programs like it would have difficulty operating at their current levels of enrollment, regardless of how well they promoted the benefits of the courses.[159]

The public, which supports adventure programs, does react prejudicially and strongly over a prolonged period of time when an accident has occurred in a situation/activity that was suspected as being risky beforehand.[160] Further, programs of a similar nature would be blackballed as well. For example, one fallout of the Vision-Quest tragedy was that another adventure based program for delinquents lost their insurance coverage as a direct result of the accident.

The reality of this paradox suggests unpleasant metaphorical parallels: the death or maiming of an individual student can mean the death or maiming of the school. The death or maiming of several students can mean the death or maiming of the adventure education movement. This reality provides one of the strongest progressive forces in adventure education "causing an organization like Outward Bound to translate its mission more effectively into action and to manage its courses more carefully."[161]

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[159] Ibid., p. 20

[160] Kasper, loc. cit.

[161] James, op. cit., p. 21.

> The specter of death has caused Outward Bound and other outdoor programs to examine what they are living for. It has forced them to probe more deeply into why they value the experience of education as they do, and how to pursue it safely. Ideally, such an enquiry is a way of developing better teachers.[162]

The adventure-education movement forces organizations and their staff to make and take calculated risks--not dissimilar to the process which their students experience. Thus, the management of risk is critical on both a micro- and macro- level. What will be found in the remainder of this paper will be some factors, techniques, and current issues that concern the management of risks in adventure programs. What should not be too surprising is that techniques for the management of risk on one level (e.g., macro/organizational) are also adaptable to the management of risks on another level (e.g., micro/individual course or student). Also, the variables on one level clearly affect the outcomes on another level. The next section will introduce a wholistically oriented process for the management of risk.

A Risk Management Process

Thomas James in paraphrasing poet/naturalist Loren Eiseley describes the goal of this risk management process which should be to provide "the unseen, necessary balance."[163] This unseen balance makes meaningless the question: How safe is safe enough?--which according to Howard Raiffa of Harvard University is a question where no answer is available anyway.[164] Simply speaking, professional adventure educators can only proceed to develop strategies that help maximize gain (i.e., organizational health and the attainment of educational goals) and minimize the potential negative outcomes of the risks that are assumed.

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[162] Ibid.

[163] Ibid.

[164] Howard Raiffa, "Directions and Perspectives of Societal Risk Assessment" in Richard Schwing and Walter Albers, Jr., eds., Societal Risk Assessment: How Safe is Safe Enough? (New York: Pleneum Press, 1980), p. 339.

An initial investigation into wholistic risk management reveals that other traditional disciplines (outside of adventure education) have an extensive history and repertoire already established. An adventure education program can gain tremendous insights into risk management strategies by an examination of what has occurred in other fields. Much of the remainder of this paper will attempt such an initial investigation. The goal is to provide insight and not to provide a definitive guide. Such insight is only the beginning for such a guide.

A starting point for this investigation is the insurance industry which has been traditionally deeply interested in the nature of risk and risk taking. The insurance industry gave birth to the concept of safety engineering. "Today, more professional members of the American Society of Safety Engineers represent or were trained by insurance companies/brokers than by any other source."[165]

The insurance industry has also had an ultimate involvement with jurisprudence (i.e., lawsuits). Jurisprudence has provided the impetus (economical impetus through torts) for the much of the progressive movement toward building understanding, systems and strategies for the management of risk.

Insurance, jurisprudence, and safety engineering are all critical interconnected and interdependent factors of a wholistic approach to risk management. Other factors and disciplines would include statistics, taxation, finance, and general management.[167] The realization that risk assumed in one area of an organization affects all areas of the organization has given birth to a new type of professional called the "Risk Manager."

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[165] Charles Culbertson, "A Risky Business" Risk Management, February, 1981, p. 28.

[166] Ibid., p. 27.

The profession of risk management has a recent evolution curiously parallel to Outward Bound. Antecedent concepts were developed in 1947 by Albert Mowbray and the first publication using the term "risk management" did not come to press until 1962.[168] Today there is a professional association for risk managers[169] which provides the usual array of conference, publications, networking, et al. The following will provide clarity as to goals, function, and processes used by this professional group.

> ...'risk management' may be defined as the process of planning, organizing, directing, and controlling the resources and activities of an organization in order to minimize the adverse effects of accidental losses on that organization at the least possible cost.[170]
>
> The essence of risk management...is essentially a rational decision-making process...The particular situation in which risk management problems arise are enumerable...The ability to apply a rational decision process to any problem involving accidental losses sets the risk management specialist apart from other managers.[171]
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> ...risk management decision process bears a clear

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[167] Ibid.

[168] Ibid., p. 28.

[169] Risk and Insurance Management Society, Inc., 205 East 42nd Street, New York, New York 10017.

[170] George Head, The Risk Management Process (New York: Risk and Insurance Management Society, Inc., 1978), p. 8.

[171] Ibid., p. 12.

> resemblance to what has long been known as the 'scientific method' ...a scientist defines a problem, considers alternative hypotheses which may solve the problem, chooses the most likely hypothesis, tests it and compares the results with what should have happened if the chosen hypothesis is true.[172]

> ...risk management may be described as both an art and a science. In fact, scientific risk management is still in its infancy. Risk managers must instead rely almost entirely upon non-quantitative techniques that depend upon deduction and intuitive judgments. Yet certain broad principles of risk management have been developed.[173]

Curiously the risk management process as described above sounds similar to the process of "calculated risk-taking" described earlier. The exact number and sequence of steps in the risk management process varies with different authors. However, Williams and Heins give an acceptable five step rendition:

> 1. Procedures and communications should be established throughout the organization to allow for a complete inventory and discovery of the potential (pure) risks that may arise in the activities of the business firm or family. Risk discovery is the first and perhaps the most difficult function that the risk manager or administrator must perform. Failure to identify all the risks faced by the firm or family means that the risk manager will have no opportunity to deal with these unknown risks intelligently.
> 2. After identification of risks, the next important step is the proper measurement of the losses associated with these risks. This measurement includes a determination of (a) the probability or chance that the losses will occur, (b) the impact the losses would have upon the financial affairs of the firm or family, should they occur, and (c) the ability to predict the losses that will actually occur during the budget period. The measurement process is important because it indicates the risks that are most serious and consequently most in need of urgent attention. It also yields information needed in step 3.
> 3. Once the risk is identified and measured, the various alternative solutions or tools of risk management should be considered and a decision made with respect to the best combination of tools to be used in attacking the problem. These tools include

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[172] Ibid.

[173] Arthur Williams, Jr. and Richard Heins, Risk Management and Insurance, 3rd edition (New York: McGraw-Hill Book Company, 1976), p. 16.

> (a) avoiding the risk, (b) reducing the chance that the loss will occur or reducing its magnitude if it does occur, (c) transferring the risk to some other party, and (d) retaining or bearing the risk internally. The third alternative includes, but is not limited to, the purchase of insurance. In selecting the proper tool the risk manager must establish the costs and possible consequences of handling potential losses through alternative methods. He or she must also consider the present financial position of the firm or family, its overall policy with reference to risk management, and its specific objectives.
> 4. After deciding among the alternative methods of risk treatment, the risk administrator and perhaps the appropriate management group must establish means for effective implementation of the decisions made. If insurance is to be purchased, for example, the problems of establishing proper coverage, shopping the market for adequate and reasonable rates, and the selection of the insurer are part of the implementation process.
> 5. The results of the decisions made and implemented in the first four steps must be monitored to evaluate the wisdom of those decisions and to determine whether changing conditions suggest different solutions.[174]

Risk Discovery

As Williams and Heins suggest the starting point is an inventory of potential risks. The types of potential sources for those risks fall into five categories:

> 1. risk of loss or property through dishonesty, damage, or bankruptcy and/or failure of others outside the organizations.
> 2. indirect property loss which occurs when an item loses its value because of damage to some other property. For example, loss of a crop because of damage to a harvesting machine.
> 3. net income losses occurs when an organization ceases to function because of an accidental loss of personnel or property.
> 4. increased future expenses because of loss of personnel or property.
> 5. legal liability of an organization and/or its employees.[175,176]

The above categories are used mainly to suggest areas the risk manager may need to investigate further. Risk managers use several methods to identify potential risks which include:

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[174] Ibid.

[175] Francis Barnett, Jr., Accountant's Guide to Insurance and Risk Management (Sausalito, California: Comptom & Rowe, 1978), p. 11.

[176] Head, op. cit., pp. 16-18.

1. Checklists of potential losses: often supplied by insurance companies and others but may be designed by the risk manager for a particular task.[177]
2. The financial statement method: this systematic procedure analyzes balance sheets, operating statements and supporting records to help identify all the existing property, liability, and personnel exposures of an organization. Future exposures can be found by coupling these statements with budget and other financial forecasts.[178]
3. The flow chart method: requires a construction of a visual diagram which explains the function and dynamics of an organization. Then four key questions are applied: a) What events could interrupt this flow? b) What is the probability of such events occurring? c) What types of losses may result from these events? d) How large are these losses likely to be?[179]
4. Internal peer review: on site visits by others within the same organization to areas they do not normally supervise. Such visits, by an accountant for example, can point out areas not normally considered to be exposed to risk by those involved.
5. External consultants: on site visit by others outside the organization who have expertise in particular areas (e.g., from safety engineers to rock climbers, etc.).

These techniques must be adapted of course to the particular situation involved. They are starting points in the risk management process.

Measurement of Potential Risks

This step is essentially a process of forecasting that involves the use of probabilities. Two dimensions are covered: a) frequency of loss and b) severity of loss. The most commonly accepted method is called the Prouty Approach. This approach was named for Richard Prouty, a risk manager with a large business firm.

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[177] "Checklists of Potential Losses as Published by 1) Individual Insurers, 2) insurance publishing houses, 3) the Insurance Division of the American Management Association,"Williams, Jr., op. cit., p. 45.

[178] Williams, Jr., op. cit., p. 49

[179] Head, op. cit., p. 18

> Prouty suggests that for each potential loss-cause combination (destruction of a building by fire, for example) the risk manager should indicate whether the probability of loss is 'almost nil' or 'slight' or 'moderate' or 'definite'. These probabilities are influenced by the probability that any particular unit will suffer a loss and by the number of units exposed to a loss. For example, the probability of a fire loss to one building could be 'slight,' but if an organization owns many buildings, the probability that the firm will incur a fire loss to at least one building is higher and may become 'moderate'.[180]

Prouty's approach could also utilize detailed historical data (e.g., safety records) or mathematical analysis of incomplete history records. Such forecasts are useful when designing future risk management interventions.

Prouty's analysis is perhaps the reason why Joshua Miner, Outward Bound, Incorporated's first president, remarked bluntly to the Colorado Outward Bound School's board of trustees in 1963 that it was not a question of "if we lost a life but rather a question of when."[181]

A final note on the measurement of potential losses is that an entire subdiscipline has been created to fulfill this function. Numerous books like Beard, Pentikainen and Pesonen's Risk Theory provide elaborate and broad based mathematical models and statistical strategies on probabilities.[182] Also, other theories dealing with the synergistic approach of multiple losses are available.[183]

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[180] Williams, Jr., op. cit., p. 55.

[181] T. James, Education at the Edge, op. cit., p. 33.

[182] R. Beard, T, Pentikainen, and E. Pesonen, Risk Theory (London: Methuen and Co., Ltd., 1969).

[183] Head, op. cit., p. 21.

Risk Management Alternatives/Tools

There are basically six tools/alternatives used by the risk manager:

1. Avoidance: One way to control a particular pure risk is to avoid the property, person, or activity with which the risk is associated by a) refusing to assume it even momentarily or b) abandoning a risk assumed earlier.[184]

2. Loss control: Loss-control measures attack risk by lowering the chance that a loss will occur or by reducing its severity if it does occur.[185] Responsibility for loss control is shared by the government, jurisprudence and the individual organization. However, loss control has been primarily in the domain of the safety engineer. The next chapter of this paper will take an extensive look at the loss control.

3. Separation: Separation is a 'Don't put all your eggs in one basket' approach. To the extent that this separation of exposures reduces the maximum probable loss to one event, it may be regarded as a form of loss reduction. Emphasis is placed here however, on the fact that through this separation the firm increases the number of independent exposure units under its control. Other things being equal, because of the law of large numbers, this increase reduces the risk, thus improving the firm's ability to predict what its loss experience will be.[186]

4. Combination: Combination or pooling . . . makes loss experience more predictable by increasing the number of exposure units. The difference is that unlike separation, which spreads a specified number of exposure units, combination increases the number of exposure units under the control of the firm.[187]

5. Transfer: Transfer of risk can occur in two ways: A. The property or activity responsible for the risk may be transferred to some other person or group of persons.[188] (e.g., selling the building that is the source of risk or sub-contracting out an activity to another organization). B. The risk, but not the property or activity may be transferred.[189] (i.e., by holding

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[184] Williams, Jr., op. cit., p. 171.

[185] Ibid., p. 172.

[186] Ibid., p. 184.

[187] Ibid.

[188] Ibid.

[189] Ibid.

harmless agreements or by specifically inserting into a legal contract that the organization refuses to accept a risk faced by another party). This alternative may also concern the purchase of insurance of various types, kinds, and amounts.

6. Risk Assumption: This occurs when an organization assumes the potential consequences of an activity. This may occur if a risk is recognized or unrecognized. An organization if it desires to assume a risk must objectively ascertain its risk-bearing capacity. The following factors should then be addressed: a) the liquidity of current resources to meet potential losses, b) net worth of the organization, c) tax consequences of possible losses, d) future plans of the organizations, e) the philosophy of the management regarding risk bearing.[190]

Risk assumption also includes the possibility of self-insurance--a situation where a certain amount of funds are set aside regularly to handle expected losses.[191]

Implementation of Chosen Alternatives

This involves technical decisions (specifically, what should be done? What safety devices should be purchased?, etc.) and managerial decisions (Who should do it? When should it be done? How much should be spent?, etc.).[192] During implementation two key concerns are:

1. The risk manager or whatever manager possesses the technical expertise for the type of decision involved makes these decisions correctly.
2. The entire management team cooperation in disseminating the necessary information throughout the organization.[193]

Monitoring

This must be done continually to evaluate and reevaluate decisions made and their efficacy in times of changing conditions. Variables to be monitored could include: accident rates, near misses, perceived reductions of risk, insurance costs, cash flow, etc. Controlling the monitoring process implies setting standards, establishing comparison procedures, establishing a repertoire of potential corrective actions for the future and establishing a routing for inspection where needed.[194], [195]

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[190] Jerry Rosenbloom, A Case Study in Risk Management (New York: Appleton-Century-Crofts, 1972), p. 11.

[191] Claude Lilly, III, Self-Insurance: A Risk Management Alternative (Malvern, Penn.: The Society of Chartered Property and Casualty Underwriters, 1978).

[192] Head, op. cit., p. 70.

[193] Ibid.

The risk management process described above is a general one. Clearly, it must be adapted to the particular needs of each organization, program, or activity. Since adventure-education programs are so variable no attempt to apply the above process will be made here.

Although no author has previously applied the entire process described above to adventure education, Dan Meyer has come the closest. In his article, "The Management of Risk,"[196] he utilized many of the management principles (outlined above). He focused in a very useful way on identifying risks and suggesting methods for loss control. Other authors, notably lawyer Bett van der Smissen, have suggested strategies for risk management from a legal perspective.[197] This perspective will be discussed extensively in a later chapter.

Jed Williamson of the University of New Hampshire is spearheading a drive by a national association to get a greater handle on the issues, and factors that influence risk management in adventrue.

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[194] Ibid., p. 71

[195] Williams, Jr., op. cit., p. 16.

[196] Dan Meyer, "The Management of Risk," The Journal of Experiential Education, Vol. 2, No. 2, Fall, 1979, pp. 9-14.

[197] Betty van der Smissen, Legal Liability--Adventure Activities (Las Cruces, New Mexico: Educational Resources Information Center, March, 1980).

education.[198]

In this chapter the author initially focused on the implications of assessing and assuming subjective versus objective risks. This discussion led to a clarification of the goals, objectives and obligations of adventure education. The paradox of safety and risk emerged as a progressive force for adventure education. Clearly, the need for a wholistic approach to risk management was warranted. Such a general concept/process (as designed by professional risk managers) was introduced. It is suggested that future authors in adventure education focus further on the application of such a process.

One area that deserves further investigation is the tools for loss control. These are primarily safety engineering concepts that focus on accident prevention, and minimizing loss should an accident occur. Again, these are general concepts/principles that could be adapted to the needs of adventure education. Chapter 4 will introduce these concepts.

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[198] Jed Williamson, in a letter to the Board of Directors of the Association for Experiential Education, Feb. 13, 1981, described potential short-term and long-range goals for the association regarding risk management.

Chapter 4

SAFETY ENGINEERING IN RISK MANAGEMENT

> "Life begins with a situation of binary outcomes; will the ovum be fertilized or not? Thereafter hazards never cease."[199]
>
> John Cohen

> "There is no such thing as an accident. What we call by that name is the effect of some cause which we do not see"[200]
>
> Voltaire

> "If preventable, why not prevented?"[201]
>
> Edward III

In the last chapter the risk management process was considered to be a wholistic approach. Each phase was considered important in understanding and controlling risks. However, "by any standard of measurement, the maintenance of effective loss-control is the most significant phase of risk management."[202]

Loss control contains two elements: 1. loss-prevention, 2. loss-reduction.[203] Loss-prevention programs emphasize safety and accident prevention. There is a large variety of such programs, as the following examples illustrate: 1. constructing a building with fire-resistant material, 2. hiking in an area with few external dangers, 3. providing helmets for climbing.

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[199] John Cohen and Mark Hansel, "Risk and Gambling," in William Haddon, et al. Accident Research (New York: Harper and Row Publishers, 1964), p. 107.

[200] H.J. Roberts, The Causes, Ecology, and Prevention of Traffic Accidents (Springfield, Ill.: Charles C. Thomas Publisher, 1971), p. vii.

[201] Ibid.

[202] Culbertson, op. cit., p. 28.

[203] Williams, Jr., op. cit., p. 173.

Loss reduction programs are primarily aimed at minimization of damage or salvage. Both try to limit the amount of loss: minimization programs occur in advance of the loss or while it is occurring, whereas salvage programs become effective after the loss is over. An example of the first would be the belaying process in climbing. First aid would be considered a salvage operation. Both loss-prevention and loss-reduction are critical elements of a field called safety engineering.

Loss control usually includes some transfer of the risks via various insurance strategies. This aspect of loss control will not be considered at this time since a detailed coverage is provided in the following chapter.

Safety engineering, as used in this chapter, will be considered a generic term that includes all aspects of the field of accident research and prevention. It will include both the human and the mechanical factors of an accident.

As the author illustrated in the last chapter, especially in the section on the paradox of safety and risk, the potential for losing life and limb has been a progressive force in adventure-education. From the very beginning of the Outward Bound movement Kurt Hahn insisted on a careful investigation of every major or minor accident and/or near miss in order to avoid the possibility of a reoccurrence.

> It was because of this that patterns of practice were developed in Outward Bound Schools which enabled them to operate for nearly twenty years (40,000 graduated students) without a fatal accident.[204]

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[204] Hogan, op. cit., p. 115.

Yet, if adventure educators are to continue to fine tune the control of loss in their programs then a grounding in the principles of safety engineering is essential. Safety engineering principles, like the risk management process described in Chapter 3, are general concepts that can be applied virtually anywhere. They are the guiding conceptual foundations upon which specific safety programs (tailored to the organization, to the environment, to the activity, and to the individual) may be developed and refined. This chapter will attempt to present such a foundation. In search for brevity and applicability, situation-specific examples will be avoided except where needed for clarity sake.

Loss control programs are primarily concerned with managing "pure risks" (i.e., situations where there is a possibility of no loss or loss). However, the underlying principles of loss control (i.e., safety engineering) can also be applied to "speculative risks" (situations where there is a possiblity of gain as well as loss). They are especially applicable in the area of adventure programming where most of the serious risks are physical. Thus, safety engineering can provide a strong support to the prime objective of adventure educators; to ensure that a student will live through the experience. Since safety engineering can also facilitate the general management of risks, it helps educators provide the "optimal" amount of risk exposure for each student, and thus, support the attainment of the second objective of adventure education.

The Safety Engineering Revolution

As mentioned earlier safety engineering evolved primarily from the insurance industry. The reason for this evolution is clear: the insurance industry had an economic incentive to lower both the cost of claims and premiums. Since the insurance industry covers a broad base of enterprises the concepts and principles developed by its safety engineers tend to be both general and widely applicable.

H.W. Heinrich provided the primary pioneering efforts that brought safety engineering to its current state of the art.[205] For forty-three years he was the Superintendent of the Engineering and Loss Control Division of the Travelers Insurance Company. During that time he did continual research on safety related issues.

Heinrich's contributions have been many, including a thorough conceptualization of the anatomy of an accident. He also made the distinction between engineering and human relations approaches to accidents.[206] These will be covered in greater detail shortly. With few exceptions, most other research on safety issues has its roots in his concepts and theories.

In the field of adventure-education, Dan Meyer has been (to this author's knowledge) the only educator to apply some of Heinrich's concepts.[207] Meyer's work was grounded upon a large data base of accident statistics from a number of programs like Outward Bound. By analyzing this extensive data-base utilizing Heinrich's theories and those of his associate Alfred Lateiner.[208] Meyer provides new insight into the nature of risk and risk management in adventure programming. The following will be an explanation of the concepts that have developed out of Heinrich's research.

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[205] H.W. Heinrich, Industrial Accident Prevention: A Scientific Approach (New York: McGraw-Hill Book Company, Inc., 1950), p. 1.

[206] Ibid.

[207] Meyer, op. cit., pp. 9-14.

[208] Alfred Lateiner and H.W. Heinrich, Management and Controlling Employee Performance (West New York, New Jersey: Lateiner Publishing, 1968), pp. 215-242.

The Anatomy of an Accident

Heinrich and others have defined an accident as an "unplanned and uncontrollable event."[209] Heinrich further suggested that "a preventable accident is one of five factors in a sequence that results in an injury."[210] Visualized as a row of dominoes, one factor would cause the next factor to fail which could cause the next to fail . . . and so on.

> The several factors in the accident occurrence series are given in chronological order in the following list:

Accident Factors	Explanation of Factors
1. Ancestry and social environment.	Recklessness, stubbornness, avariciousness, and other undesirable traits of character may be passed along through inheritance. Environment may develop undesirable traits of character or may interfere with education.
2. Fault of person.	Both inheritance and environment cause faults of person. Inherited or acquired faults of person; such as recklessness, violent temper, nervousness, excitability, inconsiderateness, ignorance of safe practices, etc., constitute proximate reasons for committing unsafe acts or for the existence of mechanical or physical hazards.

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[209] Heinrich, Industrial Accidents, op. cit., p. 14.

[210] Ibid., p. 11.

3. Unsafe act and/or mechanical physical hazard.	Unsafe performance of persons, such as standing under suspended loads, starting machinery without warning, horseplay, and removal of safeguards; and mechanical or physical hazards, such as unguarded gears, unguarded point of operation, absence of rail guards and insufficient light, result directly in accidents.
4. Accident.	Events such as falls of persons, striking of persons by flying objects, etc., are typical accidents that cause injury.
5. Injury.	Fractures, lacerations, etc., are injuries that result directly from accidents.

> The occurrence of a preventable injury is the natural culmination of a series of events or circumstances, which invariably occur in a fixed and logical order. One is dependent on another and one follows because of another, thus constituting a sequence that may be compared with a row of dominoes placed on end and in such alignment in relation to one another that the fall of the first domino precipitates the fall of the entire row. An accident is merely one factor in the sequence.
>
> If this series is interrupted by the elimination of even one of the several factors that comprise it, the injury cannot possibly occur.[211]

Even in cases where the sequence progresses through the accident stage injuries do not necessarily result. Heinrich's research shows:

1. 00.39% of all accidents produce major injuries.
2. 08.8 % of all accidents produce minor injuries.
3. 90.9 % of all accidents produce no injuries.[212]

In a given unit group of 330 similar accidents, 300 will produce no injury whatever (they are considered narrow escapes or near misses), twenty-nine will result in only minor injuries and one will result in serious injury or death. "The major injury may result from the very first accident or from any other accident in the group."[213]

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[211] Ibid., pp. 12-13.

[212] Ibid., p. 24.

Another survey of 90,000 incidents resulting in injury or property damage or both showed a ratio of one disabling injury per 100 minor injuries per 500 property damage accidents.[214]

Understanding near misses is critical in adventure programming because near misses often predict accidents:

> The great majority of fatalities and serious injuries were preceeded within one year by a 'near miss' or accident of a parallel nature on the same route or at least climbing area.[215]

Meyer's work confirms the necessity of understanding and utilizing the experience gained from near misses.[216]

Like in mathematics Heinrich postulates there are theorems in accident occurrence. Some examples of his theorems follow:

1. A personal injury occurs only as the result of an accident.
2. An accident occurs only as the result of a personal or mechanical hazard.
3. Personal and mechanical hazards exist only because of the faults of persons.
4. Faults of persons are inherited or acquired by environment.
5. The severity of an injury is largely fortuitous--the occurrence of the accident that results in injury is largely preventable.
6. Methods of most value in accident prevention are analagous with the methods required for the control of the quality, cost, and quantity of production (production can be of goods or services, including educational services).[217]

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[213] Ibid.

[214] Frank McElroy, ed., Accident Prevention Manual for Industrial Operations, 6th ed. (Chicago, Ill.: National Safety Council, 1972), p. 73.

[215] Jed Williamson, Accidents in North American Mountaineering: An Overview (Paper presented to the United International Alpinists Association, October 3, 1979), p. 6.

[216] Meyer, op. cit., p. 14.

[217] Heinrich, Industrial Accidents, op. cit., p. 11 and 14.

Are accidents preventable? Heinrich's data indicates that only 2% are unpreventable, 50% are "practicably" preventable and a full 2% are of a preventable type.[218]

Looking closer at the unplanned and uncontrolled events that result in injuries and production loss, one can find the following types:

1. Striking against--
   This refers to cases where the object or person under consideration strikes against other objects or persons and sustains injury or damage because of the force of the contact or because of the rough, sharp, slippery, wet or otherwise harmful condition of the object.

2. Struck by--
   This refers to cases where the object or person under consideration is struck by falling, sliding, flying, or moving objects or persons and sustains injury or damage.

3. Caught in, on or between--
   This refers to cases where the object or person under consideration is caught in, on or between the gears, belts, and pulleys and moving parts of machines, between a moving and a stationary object, etc., and sustains injury or damage.

4. Fall on same level--
   This refers to cases where the object or person under consideration falls on a level and sustains injury or damage.

5. Fall to different level--
   This refers to cases similar to Event No. 4 except that the object or person falls from one level to another.

6. Slip (not fall) or over-exertion--
   This refers to cases where the object or person under consideration slips or nearly falls (excluding Events Nos. 4 and 5) with attendant sudden exertion or strain and sustains injury or damage.

7. Exposure to temperature extremes--
   This refers to cases where the object or person under consideration is exposed to natural or artificial temperature extremes and sustains injury or damage.

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[218] Ibid., p. 17.

8. Inhalation, absorption, ingestion--
   This refers to cases where the object or person under consideration sustains injury or damage by reason of inhaling, absorbing or ingesting germs, dusts, vapors, rays, etc. Inhalation and ingestion are, of course, not strictly applicable to inanimate objects. This item excludes "Exposure to temperature extremes."

9. Contact with electrically charged objects--
   This refers to cases where the object or person under consideration sustains shock, burn or other injury or damage by reason of contact with electrically charged objects.[219]

There are several methods whereby safety engineers measure how safe a given organization or industry is. The following section explains.

Measuring the Cost of Accidents

By 1975 the National Safety Council had estimated that accidents cost this nation at least $29,500,000,000 annually.[220] Such tragic loss can be measured in both quantitative and qualitative terms.

Each industry (avocation or "group") has compiled their own accident statistics using three basic yardsticks.[221]

1. Frequency of injury $= \frac{\text{\# of Injuries}}{\text{Total \# of Exposure Days or Hours}}$

2. Severity of Injury $= \frac{\text{\# of Lost Days}}{\text{Total \# of Exposure Days or Hours}}$

3. Fatalities of Accidents $= \frac{\text{\# of Deaths}}{\text{Total \# of Exposure Days or Hours}}$

These yardsticks can give a general description of the objective risks in a particular industry. They can be used within an industry to help an organization make comparisons with other groups regarding safety issues. They would be helpful for example in pinpointing an exemplary program or a particularly hazardous or unsafe one.

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[219] Lateiner and Heinrich, op. cit., pp. 223-224.

[220] Merle Strong, ed. Accident Prevention Manual (Madison, Wisc.: American Technical Society, 1975), p. 4.

[221] Ibid., p. 6.

> How does adventure-education compare to other industries?
>
> The experience of a number of well-established, full time adventure programs suggest a fatality rate of about .5 million student hours of exposure, as compared to an accidental death rate in the U.S. of .1 per million human hours (all causes, at work and away). Thus, one could say that the risk of fatal accident in adventure programs may be five times that of everyday activity. On the other hand, these data also suggest that adventure programs are safer than a comparable amount of time in an automobile, which rate and estimate to be about .7 fatalities per million hours of exposure. It seems our highways are more lethal environments than are our mountains, waters and deserts.[222]
>
> What about the risk of injury? Using the accepted industrial and national safety council criteria for reportable injury--one which renders the injured person unable to perform regular duties on one or more full calendar days after the day of injury--the data suggest one could expect about 40 such injuries per million hours of adventure program exposure. This rate places adventure programs on a par with hazardous occupations such as mining. Again, the risk is considerably less than motor vehicle travel or even college football where one might expect more than 60 such injuries per million hours exposure.[223]

Qualitatively, the full cost of an accident is not found in the above measures. A full accounting would include the following:

Personnel Losses

1. Death, injury, or shock to personnel involved in the accident
2. Time or personnel involved in rescue
3. Medical fees, such as doctors, nurses, hospitals, ambulances
4. Disability costs of personnel badly injured
5. Rehabilitation costs for those who have lost limbs, mental abilities, or physical skills

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[222] Meyer, op. cit., p. 10.

[223] Ibid.

6. Funeral expenses for personnel killed in the accident
7. Pensions for injured persons or for dependents of those killed
8. Loss of skills, experience, and training
9. Training costs and lower output of replacements
10. Lost time of other personnel, such as those involved with management or public relations

Equipment and Material Losses

11. Cost of rescue equipment required
12. Nonrecoverable expenditures of emergency and survival equipment
13. Replacement cost of vehicle or equipment that generated the damage
14. Replacement cost of the equipment, vehicles, or property damaged or lost
15. Recovery and salvage of damaged equipment and vehicles
16. Obsolescence of equipment associated with vehicle or equipment destroyed

Corrective Actions

17. Accident investigation and reporting
18. Actions required to correct deficiencies that caused an accident, including recall costs
19. Slowdown in operations while accident causes are determined and corrective actions taken

Other

20. Fees for legal actions related to product liability and safety
21. Loss of functions, production, or income
22. Increased insurance rates
23. Loss of public confidence
24. Loss of prestige
25. Deterioration of morale.[224]

The above indicates the tremendous burden a single accident can place on an organization.

> Industry usually loses some prestige and experiences a decline in worker morale whenever a serious injury occurs on the job. The injury itself contributes to financial loss to the firm in terms of production slowdown, equipment repair, and replacement. The individual worker injured will never receive full compensation for time lost on the job, medical expenses, and the mental strain placed on his family. In

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[224] Strong, op. cit., p. 5.

> addition, the consumer must pay for part of any additional expenditures incurred by the firm.[225]

As suggested in Chapter Three one other potential outcome for any adventure program may be termination. All of the above suggest accident prevention programs be given high priority.

Prevention of Accidents and Injuries

That accidents should be prevented is common sense.

> The humanitarian incentive for preventing accidental injury is supplemented by two powerful economic factors: 1. The safe establishment is efficient productively and the unsafe establishment is inefficient; 2. the direct employer cost of industrial injuries for compensation claims and for medical treatment is but one-fifth of the total cost which the employer must pay.[226]

A starting point in preventing accidents is a return to Heinrich's five factors which are involved in an accident sequence. "In accident prevention the bull's eye of the target is in the middle of the sequence--an unsafe act of a person or a mechanical or physical hazard."[227] Simply speaking, "The unsafe act and mechanical hazard constitute the central factor in the accident sequence. The removal of the central factor makes the action of preceding factors ineffective."[228]

Dan Meyer used this type of approach when he wrote:

> My analysis of scores of major accident reports from various kinds of adventure programs leads me to conclude that most accidents, and particularly the fatal and near fatal ones, are caused by an unfortunate combination of any of the following: 1. An unobserved or underestimated

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[225] Ibid.

[226] Heinrich, Industrial Accidents, op. cit., p. 11.

[227] Ibid., p. 12.

[228] Ibid., p. 13.

unsafe condition; 2. an unsafe act, usually on the part of the student; and, 3. an error of judgment, usually on the part of the instructor.[229]

Unsafe Conditions

This grouping contains both mechanical and physical conditions. Such conditions may be improper or unsafe or both. This group contains most of the physical or environmental hazards of an activity. The following four major groups cover virtually all unsafe conditions.

1. Inadequate Protection--
   The unsafe conditions in this group are such as unguarded or insufficiently guarded belts, pulleys, gears, point-of-operation and moving parts of machines, unguarded or insufficiently guarded transmission shafting, etc., platforms, scaffolds, floor and wall openings and stairs without rail guards, persons without goggles or other protective devices, elevators without gates, locks or interlocks, etc.

   The improper conditions (from the viewpoint of production) in this group may include any one or all of the items shown under unsafe conditions and in addition are such as poorly crated fragile products, loading platforms without bumper strips, lack of division plates for the close storage of sharp-edged cutting tools, etc., inadequate lubrication and lack of paint or corrosion-resisting covering on structures, tools, products, etc.

2. Defects--
   The unsafe conditions in this group are such as broken, cracked, worn, weak, corroded, frayed, torn, sharp or rough materials, structures, tools, machines, products, etc.

   The improper conditions (from the viewpoint of production) in this group are identical with those listed under unsafe conditions except that there need be no danger of accidents to person. For example, a defect such as broken teeth on the timing gears of an internal combustion engine, under certain conditions would not constitute an injury condition but would obviously be included as an improper production condition.

3. Poor design, Construction or Installation--
   The unsafe conditions in this group are such as structures, machines, tools, etc., having too low a factor of safety, awkward, cumbersome or difficult to handle or operate safely, etc., structures, machines, etc., that although safely

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[229] Meyer, op. cit., p. 10.

> designed, have been so constructed as to invite injury, and machines, tools, etc., that have been properly designed and constructed but have been unsafely installed.
>
> The improper conditions (from the viewpoint of production) in this group may include any one or all of the items shown under unsafe conditions and in addition are such as structures, machines, etc., that do not meet requirements for maximum output, valves that are difficult to reach, gauges that cannot easily be read, machines and devices that are too costly in operation, etc.
>
> 4. Poor environment--
> The unsafe conditions in this group are such as are produced by congestion and poor housekeeping, insufficient light, heat and ventilation, lack of sanitary facilities, excessive noise and vibration, exposure to temperature extremes, inclement weather, etc.
>
> The improper conditions (from the viewpoint of production) may include any one or all of the items listed under unsafe conditions and in addition are such as improper arrangement or location of processes, machines, tools, etc., with regard to convenience and speed in transporting materials and products from one operation to another, and distraction of operators on non-hazardous work caused by noise, conversation, reflections, passers-by, etc.[230]

Meyer identified, from his study, five significant unsafe conditions (as related to accidents) found in a typical adventure program:

1. Swift moving water
2. Loose rock--especially in western mountains
3. Inadequate area security--'refers to assessment and delineation of known hazards and hidden perils in a given activity area'--not knowing the area well enough for safe operations there
4. Unexpected extreme weather change
5. Improper clothing[231]

Unsafe conditions were once thought to be the cause of most accidents. However, as mechanical engineering approaches improved, this factor was found by Heinrich to be responsible for only 10% of preventable accidents.[232] Most preventable accidents were clearly attributable to unsafe acts.

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[230] Lateiner and Heinrich, op. cit., pp. 225-226.

[231] Meyer, op. cit., p. 11.

[232] Heinrich, Industrial Accidents, op. cit., p. 17.

Unsafe Acts

Heinrich suggests that a full 88% of all preventable accidents are attributable to unsafe acts.[233]

This grouping includes improper acts (which affect production) and acts which affect just safety, or combinations of both.

Each situation is different. However, the following are nine general groups into which most unsafe acts can be found:

1. Operating Without Authority, etc.--
   This item refers to such unsafe or improper practices as turning on or shutting off steam, air, water or electric current--starting up or stopping machinery--moving or arranging--failing to lock, tag, fasten or secure, etc., without authority, without warning others or in such a way and under such circumstances as to endanger persons or interfere with production.

2. Operating at Improper Speed--
   This item refers to such unsafe or improper practices as running on stairs, throwing material instead of carrying it, operating vehicles, cranes, and other moving or transporting equipment at too fast or too slow a rate, taking too deep or heavy cuts, using high gear instead of low, and haste and hurry in general where safe and proper procedure calls for greater care.

3. Making Protective Devices Inoperative, etc.--
   This item refers to such unsafe and improper practices as tampering with the safety devices on the point-of-operation of machines, obstructing exits, blocking access to fire extinguishers and apparatus, etc., screwing down safety and relief valves, removing or damaging tarpaulin covers on exposed equipment and tampering with automatic regulating or control devices, etc.

4. Using Improper Tools, etc.--
   This item refers to such unsafe and improper practices as using a Stillson wrench where an open end or monkey wrench is required, standing on a box instead of a ladder, using a stepladder when a straight ladder is called for, using hands instead of tongs, putting a heavy machine job on a

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[233] Ibid.

light machine, using precision gauges for rough measurement, etc.

5. Improper Loading, Placing, etc.--
This item refers to such unsafe and improper practices as piling, storing or placing materials where they do not belong, mixing of grades, kinds, sizes, etc., piling too high or not high enough, combining one substance with another in improper quantity or at the wrong time or place, etc.

6. Taking Improper Position, etc.--
This item refers to such unsafe and improper practices as crossing railroad tracks in front of oncoming trains, standing or working under suspended loads, lifting with bent back, signaling from a position where the view is obstructed, working in such a position as to cause a poor job to be done or so as to interfere with maximum production.

7. Working on Moving Equipment, etc.--
This item refers to such unsafe and improper practices as oiling machinery while it is in motion, adjusting or repairing moving machinery, slipping belts on running pulleys, changing dies on presses while the power is on, etc.

8. Distracting, Teasing, etc.--
This item refers to such unsafe and improper practices as talking to operators of dangerous machinery that requires the closest possible attention, shouting unnecessarily to busy workmen, fooling, horseplay, practical joking, etc.

9. Non-use of Personal Protective Devices, etc.--
This item refers to such unsafe and improper practices as failure to wear goggles, gloves, masks, respirators, face shields, leggings, hard hats, safety shoes, etc., where the exposures require such protection, failure to set spark shields or to use protective hand creams, etc., and failure to use protective coverings over tools and equipment that are exposed to dust, dirt, moisture, corrosive acids or excessive heat or cold.[234]

Meyer's research suggested four areas of unsafe acts that typically lead to accidents in adventure programs:

1. Poor position--which occurred for example when students and staff were in the fall line of loose rock or avalanches
2. Unauthorized procedures--abandoning safety rules
3. Unsafe speed--includes motor vehicles, skiing, etc.

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[234] Lateiner and Heinrich, op. cit., pp. 228-231.

4. Inadequate water and nutritional intake--when option for eating and drinking could have been available.[235]

Heinrich extended his analysis further beyond unsafe acts and concluded that the real cause of most preventable accidents lies with the "defects of person."[236] This factor is the second domino in his theoretical construct. However, it is the first factor that may be influenced by safety engineering.

Defects of Person

Heinrich postulated that virtually all unsafe conditions and unsafe acts had their roots in some "defects" of the person. He suggested such defects could be addressed. The following are mental and physical and/or other characteristics that exist to an extent that they constitute faults of persons. Included are Heinrich's suggested remedies:

	Reasons for Committing Improper Acts	Basis of Remedy
1.	Unconvinced that practice or condition is improper.	Instruction and Appeal.
2.	Uninformed - Unaware of proper method, etc.	Instruction and Appeal.
3.	Inconvenient, not attractive, awkward, or uncomfortable to follow proper practice.	Engineering Revision.
4.	Impossible or extremely difficult to follow proper practice.	Engineering Revision.
5.	Physically unsuited-poor eye-sight or hearing; sleepy, weak, tired, etc.	Personnel Adjustment and Engineering Revision.
6.	Excitable, nervous, absent-minded, erratic, etc.	Engineering Revision and Personnel Adjustment.
7.	Involuntary action.	Engineering Revision and Personnel Adjustment.
8.	Habit.	Engineering Revision,

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[235] Meyer, op. cit., p. 11.

[236] Lateiner and Heinrich, op. cit., p. 240.

		Personnel Adjustment and Instruction and Appeal.
9.	Inherently reckless.	Engineering Revision and Discipline.
10.	Willfully disobedient or disloyal.	Engineering Revision.[237]

From the above it is clear that remedial action may be grouped roughly in four ways:

1. Engineering Revision--
   Guarding, redesign, relocation of materials, etc.
2. Instruction and Appeal--
   Instruction in safe and proper practice, demonstrating, providing proof and illustration, test performance, inspiring enthusiasm, convincing, appealing to motivating characteristics, etc.
3. Personnel Adjustment--
   Rule-of-thumb common-sense shop practice in dealing with employees when there are indications of abnormality as to mind and body, or when normal persons are not suited to their work.
4. Discipline--
   Admonition, loss of privilege, penalities, etc.[238]

Meyer called his third area of causes "judgmental error."[239] He suggested that five types are typically linked to accidents in adventure programs:

1. New or unexpected situations - refers for example to routes used for the first time by an instructor, a new program, etc.
2. Desire to please - refers to the attempt of live up to the perceived expectations of others.
3. Misperception - refers to instances that are clarified by hindsight where a situation was not 'read' properly/accurately.

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[237] Ibid., pp. 238-239.

[238] Ibid., pp. 239-240.

[239] Meyer, op. cit., p. 12.

4. Fatigue - could be physical, emotional stress.
5. Distraction - too many activities going on at once for adequate supervision or too much anxiety is obscuring necessary focus.[240]

Judgmental error is clearly related to defects of person spoken about earlier. Meyer's suggested remedies focus on staff selection and training. "There is perhaps no more important single factor in the management of risk than the proper selection and training of staff."[241]

Understanding the anatomy of an accident (i.e., the underlying factors of unsafe conditions, unsafe acts, and defects of person) gives one a handle on prevention. Other techniques that focus on limiting an individual's injury are also important (i.e., loss-reduction techniques). First-aid, belaying, emergency preparedness are all examples. Yet, understanding accidents and how to prevent them are still the critical issues in safety engineering. Vast amounts of research have been conducted in the transportation industry (aviation and automobile) on the human factor. Some researchers like Dr. William Haddon, Jr., President of the Insurance Institute for Highway Safety have suggested that our efforts at accident prevention are best focused on physical factors rather than human factors. Haddon suggested a new more comprehensive way of classifying and controlling accidents according to the destructive way energy is transferred in an accident.[242]

The Destructive Release of Energy Theory

Haddon's analysis of an accident can be viewed as an extension of Heinrich's third factor (unsafe conditions, unsafe acts). However, whereas Heinrich's approach emphasizes control of human failings, Haddon emphasizes the control of energy, a physical force.

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[240] Ibid.

[241] Ibid., pp. 12-13.

[242] Williams, Jr., op. cit., pp. 175-176.

Haddon suggests ten strategies, each of which attempts to suppress accident-producing conditions or enhance accident-retarding conditions. The ten strategies with some illustrations are as follows:

1. Prevent the initial marshaling of the form of energy. Prevent the buildup of hurricanes, the starting of vehicles, the conception of tigers.
2. Reduce the amount of energy marshaled. Reduce the amount of explosives in each shipment, the speed of vehicles, and the height of divers above swimming pools.
3. Prevent the release of energy. Prevent the fall of elevators, the jumping of would-be suicides, and the escape of tigers.
4. Modify the rate or spatial distribution of release of the energy from its source. Use parachutes, fire-retardant clothing, and boiler safety valves.
5. Separate, in space or time, the energy being released from the structure subject to damage. Keep vehicles out of areas frequented by children, place electric power lines out of reach, provide railroad over- and underpasses.
6. Separate the energy being released from the susceptible structure by interposing a material barrier. Use safety glasses, shin guards, lead aprons, and fire doors.
7. Modify the contact surface, subsurface, or basic structure that can be impacted. Eliminate, round, or soften corners and edges in designing buildings, cars, and toys.
8. Strengthen the structure that might otherwise be damaged. Raise the impact resistance of cars, construct fire-resistant buildings, and immunize people against as many diseases as possible.
9. Move rapidly to detect and evaluate damage that has occurred or is occurring and counter its continuation and extension. Install sprinkler systems and fire alarms, apply mouth-to-mouth resuscitation, and render emergency medical care to automobile accident victims.
10. All measures falling between the emergency period covered in 9 and return to pre-event status or stabilization in some altered states. Plastic surgery, skin grafts for burns, teaching braille to a blinded automobile accident victim, and developing less-expensive fender repair methods illustrate this final approach.[243]

Haddon's construct is worthy of study by risk managers especially adventure risk managers.

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[243] Ibid.

The study of accidents is an interdisciplinary one--which includes at some level almost all known academic desciplines (from law to biology). Understanding the fundamentals as presented thus far are critical in the establishment of a wholistic approach to safety. What would such an approach include?

Safety Management

"A good safety record does not just happen--it is the result of a number of people doing a number of things well. Taken as a whole these activities have been called a 'safety program.'"[244] A comprehensive safety program has many components including:

1. Management's statement of policy.
2. Organization safety rules
   - Clear and comprehensive
   - Printed and acknowledged by all
3. Definitions of responsibility
4. Screening of employees
5. Placement of employees
6. Training of employees (orientation)
7. Ongoing training of all employees
8. Supervisory training
9. Motivational activities
10. Inspections, and job analyses (both by internal staff and external consultants)
11. Investigations and hazard hunts (both by internal staff and external consultants)
12. Record keeping of accidents and near misses
13. Record analyses
14. First aid training and emergency procedures
15. Medical facilities
16. Appointment of a safety coordinator and safety committee[245]

Such a list is not all inclusive but it does indicate areas an adventure program may consider in its pursuit of safety.

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[244] Dan Peterson, Safety Supervision (New York: AMACOM, 1976), p. 26.

[245] Ibid.

In 1967 the National Safety Council surveyed 148 industries in an attempt to rate the importance of various safety activities. A total of 78 activities in eight safety program areas were rated as to their importance. The major program areas and the top-rated activities in each are as follows:

1. Supervisory Participation
   Enforcing safe job procedures.
   Setting an example by safe behavior.
   Training new or transferred employees in safe job procedures.
2. Middle Management Participation
   Setting an example by behavior in accord with safety regulations.
   Restating management's position on safety.
   Using safety as a measure of management capability.
3. Top Management Participation
   Setting an example by behavior in accordance with safety regulations.
   Assigning someone to coordinate safety on a full- or part-time basis.
   Establishing a policy expressing management's attitude on safety.
4. Engineering, Inspection, Maintenance
   Specifying guards on machinery before it is purchased.
   Setting up a formal lockout procedure.
   Establishing a system of preventive maintenance for tools, machinery plant, and other items and areas.
   Inspecting tools and equipment periodically.
5. Screening and Training of Employees
   Making safety a part of every new employee's orientation.
   Including safety in supervisory training courses.
   Including safety requirements in job procedures based on job safety analysis.
6. Coordination by Safety Personnel
   Advising management in the formulation of safety policy.
   Analyzing the safety program to determine its effectiveness.
   Assisting and advising other departments on various safety-related matters.
7. Forming a Record Keeping System
   Requiring the department supervisor to conduct investigation of disabling injuries.
   Using a standardized injury investigation form.
   Including recommendations in injury statistics reports.
8. Motivational and Educational Techniques
   Providing for the employees a list of general safety rules.
   Establishing a procedure for disciplining violators of safety rules.
   Holding work-place safety meetings.[246]

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[246] Ibid., pp. 30-31.

The safety council's survey indicates that safety management takes place on all levels and must inherently involve the whole organization. Another factor not considered in the above discussion is that of research.

Research plays a continuing role in upgrading the state of the art of safety engineering. For example, all of Heinrich's concepts were based on extensive studies. As different industries have developed, concepts of safety engineering have been applied and then refined based on experience. For example, Heinrich's theories about human engineering have found fertile ground in the aviation industry. The uniqueness of the industry (and the risk of death and injury) lead to several major research projects that eventually improved the entire safety engineering field.[247,248]

Government regulations and interventions have provided strong support for developing new ways to improve safety. For example, the Occupational Safety and Health Administration (OSHA) has "helped fulfill a promise that our nation's workers need not trade their labor for the risk of accidents or illnesses."[249] Another example is the U.S. Consumer Product Safety Commission. The commission has provided hundreds of "hazard analysis reports" on products as varied as public playground equipment[250]

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[247] Ross McFarland, Human Factors in Air Transportation (New York: McGraw-Hill Book Company, Inc., 1953), p. ix.

[248] Editors of Flying Magazine, Pilot Error: Anatomies of Aircraft Accidents (New York: Van Nostrand Reinhold Company, 1977), p. 5.

[249] Judson MacLaury, ed. Protecting People at Work (Washington, D.C.: U.S. Department of Labor, 1980), p. 1.

[250] George Rutherford, Jr., Hazard Identification and Analysis Report: Public Playground Equipment (Washington, D.S.: U.S. Consumer Product Safety Commission, August, 1979).

to skateboards.[251] Many other governmental safety oriented commissions exist. All try to help increase the safety element in ous daily lives.

Safety engineering has attempted to remain generalized in its constructs while simultaneously attempting to specify its processes where needed. Out of such dual goals has arisen a number of specific techniques that are applicable to a large number of situations. Peterson specifies six "general safety techniques that work:"

1. Job Safety Analysis (JSA)
2. Job Safety Observation (JSO)
3. Safety Sampling (SS)
4. Incident Recall Technique (IRT)
5. Technique of Operations Review (TOR)
6. Hazard Hunt (HH)[252]

Safety Engineering in Adventure Education

The above are specific methodologies that can be applied in a variety of situations--including adventure education. Since the risk revolution and adventure education have only recently come into full bloom there is room (and need) still to apply the methodologies and constructs of safety engineering. At the same time, adventure education can expand on those constructs and methodologies when applying them to specific situations. For example, Outward Bound Course director Randy Udall identified three high-risk types of students who require the special attention of instructors:

> The first was the abdicators who say, 'My safety is in your hands.' These people need to learn to be more aggressive and more active in order to assume responsibility for themselves. They are the ones who stand around and become hypothermic in

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[251] George Rutherford, Jr., et al. Hazard Identification and Analysis Report: Skateboards (Washington, D.C.: U.S. Consumer Product Safety Commission, June, 1977).

[252] Peterson, op. cit., pp. 125-155.

> winter, the ones who develop 'the glazed eye.' The second type identified by Udall was the immortals, generally young men who have no sense of themselves as people who can be hurt. To help guard against this behavior, staff must set a clear example and show students that they take the rules seriously. The third type was composed of people who simply seemed disembodied in the outdoors, people who simply were not fully and physically there, and who exhibited 'spacey' behavior.[253]

Udall's analysis clearly finds its place in Heinrich's "defects of person" category.

This author has developed and used a safety methodology that may be called the "buffer zone" analysis technique. Buffer zones are simply positive ways to answer the question, "What if . . . ?" Buffer zones take into consideration the multiplicity of factors involved in a particular potential accident. Buffer zones are only effective if they are established well in advance, are realistic, and are known to those involved. An example of buffer zone analysis can be found in the following scenario.

A group of students are doing a marine botany project on Little Cayman Island in the Caribbean:

Leader: "Our students are on the tiny island of Little Cayman. This island, seven miles long, a mile-and-a-half wide, has a maximum elevation of twenty feet. They're there on a marine botany project."

Murphy (of Murphy's Law fame): "What happens if a storm hits the island?"

Leader: "The team would board up the windows of the house and stay in until the weather subsided."

Murphy: "What if it was a bigger storm?"

Leader: "We'd go to the shelter in the middle of the island and wait it out."

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[253] Thomas James, Paradox of Safety and Risk, op. cit., p. 21.

Murphy: "What if it was a hurricane?"

Leader: "We'd be evacuated from the island by boat."

Murphy: "And if the seas were too high?"

Leader: "Well, we'd fly out. There are commercial crafts available and we'd just take any one. Then we could go to Cayman Brac and stay in the hurricane shelter there. Planes fly every day except Tuesday."

Murphy: "What if the hurricane hit on Tuesday?"

This kind of dialogue provides a great deal of food for thought before the accident or emergency occurs. Another example of the analysis may be in the following dialogue.

Leader: "We have a small team of students, down in a remote village in the jungles of Belize. Students are studying bats. They are involved in the capture, identification and handling of the animals. A small dirt road connects the isolated site to the outside world. I speak fluently the local language and can communicate quite well with the people in the nearest village."

Murphy: "What would happen if a student were bitten by a bat and became very ill?"

Leader: "Well, we'd clean the wound and send him out on the motorcycle that supplies our camp. The motorcycle would take the victim and the driver to the local village, and there the villagers would seek outside help for us."

Murphy: "What if two people were bitten by the bat at the same time?"

Leader: "Well. . . "

Murphy: "What if two people were bitten, and you were one of them, and became unconscious?"

Leader: "Well. . . "

This brief dialogue and the hard questions asked, unfortunately reveal that there are often no easy solutions when multiple factors are involved. Dialogues like the above can and should occur with students. The leader could play the advocacy role of Murphy. Such dialogues can serve to instill the proper safety attitudes in students, make them aware of the risks, prepare for all potential hazards. The key is to do it in advance.

Another general technique this author has found useful may be called the "premature accident report." Simply speaking, this technique calls for the leader (and students) to enter every activity by initially filling out an imaginary accident report. This accident report would detail the hazards found in the environment, discuss what judgmental errors were made, describe what actions caused the imaginary accident, and detail how the crew responded to the accident (who went for help, who carried the first-aid kit, where help was sought from, etc.).

An analysis of the types of risky students, buffer zone analysis, and the premature accident report are not entirely unique or new ideas. Rather, they are expressions (mostly coincidentally) of basic safety engineering concepts. Much could be gained if the constructs and expertise of safety engineers were systematically applied to adventure education.

In this chapter the author has attempted to provide insight into the discipline of safety engineers. Such insight is only the beginning for future adaptations and applications--which are urgently needed in adventure education.

Lastly, in this chapter the author has provided another link in the hypothesis that the activity which is legally, safely and educationally sound uses an optimal amount of risk. Consider: every enterprise safety engineering is concerned with inherently contains the element of risk. The control of that risk is what is sought--not the total elimination (which would be an elimination or avoidance of the enterprise). As Heinrich wrote in 1950, "Accident prevention is both science and art. It represents, above all other things, control--control of man performance, machine performance, and physical environment."[254]

"Control" as used here is similar to that described in the second chapter (risk-takers and stress seekers, flow experience, RE response, et al.). Control implies the ability to provide the "right" amount of risk (calculated risk) for a given situation. The risk management process of chapter three also addresses this issue directly.

In the next chapter the author will discuss another loss-control tool: insurance.

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[254] Heinrich, op. cit., p. 1.

Chapter 5

INSURANCE AND RISK MANAGEMENT

> Insurance is not one of the basic tools of risk management, but it is easily the most important illustration of the transfer technique and the keystone of most risk management programs.[255]

In this chapter the author will define insurance, discuss its general costs and benefits, and provide insight as to which risks are non-insurable. For a risk to be insurable a certain amount of information about the risk must be known. Therein lies the justification for the creation of an accident data-bank for the adventure industry. Criteria for implementing such a surveillance system will be introduced.

The administration of an insurance program is a crucial aspect of a risk manager's job. Insight as to the scope of such management will be provided as well as a summary of potential pitfalls. Lastly, some current issues involving insurance and adventure education will be discussed.

The transfer of risks as discussed in Chapter Three is a critical aspect of risk management. The type of loss involved in such risks are primarily financial in nature. Thus, the term "risk financing"[256,257] is used by risk managers to describe the tools and techniques that are "designed to provide funds, at the least possible cost, for any type of accidental loss which may befall an organization despite its risk control efforts."[258]

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[255] Williams, Jr., op. cit., p. 200.

[256] Ibid., p. 187.

[257] Head, op. cit., p. 59.

Risk financing contains three elements: 1) retention--defined as "the use of funds originating from the organization to finance accidental losses."[259], 2) non-insurance transfers--which include exculpatory and hold harmless clauses in legal contracts and 3) insurance.

Insurance Defined

Insurance can be defined from two perspectives. First, insurance is the protection against financial loss provided by an insurer. Thus, from the perspective of the insured, insurance is a transfer device. Second, from the perspective of the insurer, insurance is a device by which "the risks of two or more persons or firms are combined through actual or promised contributions to a fund out of which claimants are paid."[260] Thus, insurance is also considered both a retention and combination device. Through this combining or pooling of risks the insurer improves its ability to predict its expected losses.

At this point a distinction must be made between insurance and gambling.

> The purchase of insurance is sometimes confused with gambling. Both acts do share one characteristic. Both the insured and the gambler may collect more dollars than they pay out, the outcome being determined by some chance event. However, through the purchase of insurance, the insured transfers an existing pure risk. A gambler creates a speculative risk.[261]

Bonding (e.g., surety or fidelity) is another form of risk transfer that is distinct from typical insurance contracts. Under the conditions of a surety bond "a person, called a 'surety,' guarantees that another person, called a 'principal,' will carry out some express obligation to some third person, called an 'obligee.'"[262] If the principal does not fulfill his obligation, the surety must either satisfy the obligation or pay a penalty as stated in the bond. A co-signer on a bank loan is an example of bonding.

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[258] Ibid., p. 53.

[259] Ibid.

[260] Williams, Jr., loc. cit.

[261] Ibid.

There are at least five major differences between a typical property insurance contract and a typical surety bond:

1. A surety bond has three parties to the contract--the principal, the obligee, and the insured. Two parties normally enter into an insurance contract--the insured and the insurer.
2. Under a surety bond, the principal obtains the bond and pays the premium but the obligee receives the protection. An insured usually purchases an insurance contract to protect himself or herself.
3. A loss under a surety bond may be caused intentionally by the principal. An insurance loss should be accidental from the viewpoint of the insured.
4. Ideally, there would be no losses under a surety bond because the surety would not write the bond if there were any chances of loss and the surety would discover any potential losses in its investigation. An insurer expects some losses among the insured group. Ideally, a surety bond premium would not have to contain any expected-loss allowance. The premium would thus cover only the surety's investigation and other expenses and provide some margin for profit and contingencies. An insurance premium must provide for expected losses. In practice, sureties do incur some losses because their investigations are not completely effective, but losses are a much smaller proportion of surety bond premiums than of insurance premiums. Surety bond loss ratios also tend to fluctuate more widely over time because of lower loss frequencies and the sensitivity of much bond experience to economic cycles and natural catastrophes.
5. If a loss does occur, the surety can turn to the principal for reimbursement. An insurer does not have this right against an insured.

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[262] Ibid., p. 185.

Not all property insurance contracts nor all surety bonds share the characteristics contained in the above list. Some surety bonds more closely resemble insurance than others. Nevertheless this distinction between typical property insurance contracts and surety bonds is valid and useful.[263]

General Costs and Benefits of Insurance

The costs of insurance can generally be grouped into three areas: 1) operating expenses--which is the cost to financially maintain the existence of the insurance industry, 2) moral hazards--which are conditions that increase the chance that some person will intentionally cause a loss, 3) morale hazards--which are conditions that cause people to be less careful than they would otherwise be.

Most authors do not attempt to quantify the moral or morale hazards caused by the existence of insurance. However, such hazards are addressed by risk managers through various techniques.

The benefits of insurance can generally be summarized as:

1. indemnifies those who suffer unexpected losses,
2. reduces uncertainty for the individual and society,
3. results in more nearly optimum production, price levels, and price structures,
4. releases funds for investment,
5. improves the competitive portion of small business, and
6. increases participation in loss-prevention activities.[264]

Insurable and Non-Insurable Risks

Generally, insurance can be provided to protect from personal, property and liability risks. As stated earlier, insurance is primarily concerned with pure risks. However, not all pure risks may be considered insurable by the insurance industry. The following are characteristics of ideally insurable risks (from the perspective of the insurance industry):

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[263] Ibid., p. 201.

[264] Ibid., p. 206.

> Among pure risks, the following conditions should be satisfied before the risk is ideally insurable:
>
> 1. There should be a large number of independent units, all of approximately the same value, exposed to the risk and controlled by persons interested in insurance protection. This requirement follows from the law of large numbers, since an insurance operation is safe only when the insurer is able to predict fairly accurately what proportion of its exposure units will suffer losses. Enough units must have been exposed in the past to provide some reasonable estimate of the probability of loss; enough units must be insured in the future for future experience to approach that same probability.
>
>   A large number of insured units should be exposed to the risk because risk varies inversely with the square root of the number of units exposed. The units should be exposed independently, for otherwise what happens to one unit will determine what happens to other units and the effect will be the same as if there were many fewer units. All units should be of approximately the same value, since otherwise the loss of a high-valued unit will be as costly as the loss of several low-valued units.
>
>   In order to make certain that the owners of a large number of units will be interested in insurance protection, two subrequirements must be satisfied. First, the potential loss must be serious enough in terms of its probability and its severity to cause many people to seek protection through insurance. On the other hand, the expected loss must not be so great that the size of the premium will discourage the purchase of insurance.
>
> 2. The loss should be definite or determinate in time, place, cause, and amount; otherwise, loss-adjustment problems are created. Another problem related to the next desirable characteristic is that the accumulation of loss experience becomes much more difficult when the loss is indefinite.
>
> 3. The expected loss over some reasonable operating period should be calculable. This condition is necessary if the premiums are to be set at the level necessary to produce with some certainty a reasonable, but not excessive, profit or operating margin for the insurer. Conditions 1 and 2 must exist before condition 3 can be satisfied, but in addition, the expected loss should either be fairly stable over time or otherwise be predictable.
>
> 4. The loss should be accidental from the viewpoint of the insured. From a business viewpoint, it is clearly unwise

to insure a person against an intentional loss.[265]

Given the above and the recent blooming of adventure education one can clearly foresee some potential problems for adventure educators in securing adequate insurance. Yet, adventure educators may find the experience of the aviation industry helpful. "Aviation in its early days presented many risks that insurers hesitated to insure largely because they had no basis for determining the premiums, but the infant aviation industry needed the protection, and insurance was written."[266]

Certain risks are insured even when they do not meet the conditions described above. The more an industry can conform to the above conditions and provide needed information to insurers the more realistic insurance premiums will be.

Professional groups like the Association for Experiential Education (AEE) have provided impetus for the establishment of an "industry" wide data bank. One purpose of such a bank would be to provide the data needed to make the industry insurable. Without such information insurance company agents can only make intuitive guesses as to the objective risks associated with adventure activities. Such guesses would be based on the perceived risks of the activity which may not realistically reflect the objective risks. The work by Dan Meyer is an example of how to provide the information needed for proper insurance coverage.

Creating a Data Bank

In the previous chapter the importance of maintaining safety records (of both accidents and near-misses) was stressed from a safety engineering perspective. However, such data also have great utility for insurance companies (in terms of premium setting). Almost every industry (and corresponding governmental regulatory agency and private or professional association) has developed a safety surveillance system to collect data on accidents. The development of an effective system would involve several processes which include:

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[265] Ibid., p. 209.

[266] Ibid., p. 210.

1. Expedient uniform recording on standard forms of all near-miss incidences which indicate potentially hazardous situations or conditions,
2. Expedient uniform recording on standard forms of all accidents (and injuries) which occur,
3. Prompt and thorough investigation of both near-miss and actual accident episodes,
4. A process for summarizing and analyzing accident data,
5. Conclusions and recommendations which provide interpretive directions for corrective actions, and
6. An accountable scheme for assessing and monitoring the corrective measures which are implemented.[267]

Such a surveillance system could be used on both a micro-level (i.e., individual organization) or on a macro-level (i.e., industry wide). Either way such a system provides useful information to both the insurance industry and to those who are directly represented by the data. Accurate and standardized recording is critical to such a system.[268]

Jed Williamson on the AEE Board of Directors has proposed that a safety committee be formed within the association. He suggests that the first priority of the committee should be:

> Designing a data reporting system for accidents and incidents and a computer storage program for the purpose of retrieving comparative data; designing a system for reporting data to

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[267] Frazier C. Damron, Accident Surveillance Systems for Sports, Sports Safety Series Monograph No. 2 (Washington, D.C.: The American Alliance for Health, Physical Education and Recreation, 1977), p. 1.

[268] National Committee on Urban Transportation, Maintaining Accident Records (Washington, D.C.: Public Administration Service, 1958), p. 3.

subscribers in an instructive format; implementing both these designs, which implies working directly with subscribers in all phases.[269]

Setting up a data bank to serve the adventure industry requires implementing a systematic communication plan for networking. Such a plan should include the following topical principles:

1. Determine objectives
    a. Increase awareness
    b. Change attitudes
    c. Achieve acceptance
    d. Obtain support

2. Analyze the receivers (audiences)
    a. Agency administration and staff
    b. Heads of departments, divisions, areas
    c. Participants
    d. Parents
    e. Representatives of community and state agencies
    f. News media

3. Select appropriate methods for reaching each audience
    a. Clarify system definitions
    b. Obtain receiver involvement
    c. Utilize social action (which emphasizes shared values and objectives)

4. Evaluate effectiveness of the communication process
    a. Through a systematic assessment scheme
    b. Informal questionnaires
    c. Person-to-person interviews
    d. Analyze responses (related to systems and communications objectives)
    e. Make appropriate changes[270]

Other basic considerations for the creation of an industry wide data bank include:

1. Philosophy--an acceptable, understandable philosophical platform is needed for administrative decision-making and operational function.

2. Authority--designated, accepted legal authority is needed to carry out the operational functions of a data-bank and/or networking system.

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[269] Williamson, Letter to Board of Directors, AEE, op. cit., p. 2.

[270] Damron, op. cit., pp. 43-44.

3. Policies--written, accepted, specific policies are needed to help implement the goals and objectives of the system.

4. Budgeting--justifiable, adequate budgeting is needed to expedite precise planning and conduct of system operations.

5. Personnel--qualified dedicated leadership is required to organize, manage and maintain an effective accident data system.

6. Education--the organizational efficiency of an accident data system will depend on the education provided for leaders and workers alike.

7. Facilities--adequate, secure designated facilities are required for the creation and operation of an accident data system.

8. Evaluation--appropriate, timely evaluative methodology and technology are needed to continue to monitor and upgrade the functioning of the system.

9. Reporting Process--the clarification of terms and definitions, the development of appropriate reporting forms, strategies and procedures are all needed to produce a functional system.

10. Investigation process--a thorough and efficacious investigation process and procedure must be developed.

11. Data summarization process--an efficacious process for the machine and/or manual summarization of accident data should be developed based on clear, previously formulated objectives.

12. Data analysis process--a data analysis process must be developed to provide frequency and severity rates from raw data. Such a process should also include analytical categories (e.g., nature of injury, hazardous conditions, source of injury), an analysis of accidents and information on data comparison pitfalls. A final outcome should be an understandable presentation and interpretation of accident data.[271]

As described above a data-bank is merely an extension of the networking that is naturally occurring in an industry. However, the extension is critical in terms of both safety and insurance. Adventure education in this author's opinion needs such a data bank immediately.

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[271] Ibid., pp. 44-56.

Insurance Management

One of the most important aspects of a risk manager involves the administration of an organization's insurance programs. Such a function includes the following steps:

1. Deciding which forms of coverage are best suited to the firm's needs.
2. Selecting agents, brokers, and insurers.
3. Negotiating for coverage.
4. Analyzing and selecting methods for reducing insurance costs.
5. Seeing that the terms of insurance contracts are complied with.
6. Handling loss settlements and negotiations with adjustors.
7. Designing and maintaining adequate records of coverage and other data necessary to a sound program of insurance.[272]

The management of insurance is an extremely complicated process. The potential pitfalls are many. Mark Greene, professor of insurance at the University of Georgia, provides a concise summary of the major errors found in insurance management:

1. Underinsurance
   Surveys find that management in general runs needless risks which could be economically handled by insurance often without a significant increase in total premium cost. Underinsurance takes the form of inadequate coverage or lack of coverage altogether, leading to unintentional assumption of risk.

2. Organization and policy
   A common error here is failure to pinpoint responsibility for handling the insurance program. Usually this takes the form of having more than one insurance agent. It may also take the form of not appointing someone within the organization to deal with several agents used by the firm.

3. Inadequate planning
   Among the errors here are failure to set down a clear statement of insurance buying philosophy or policy, failure to centralize insurance buying for most economical handling of coverage, failure to set up procedures so that all new exposures can be recognized and either insured or otherwise disposed of. Inadequate budgeting for self-insured losses

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[272] Mark R. Greene, Risk and Insurance, 3rd ed. (Cincinnati, Ohio: South-Western Publishing Company, 1973), pp. 91-92.

or loss prevention activity is a common failing.

4. Failure to initiate, supervise, or maintain loss prevention programs.

5. Failure to review insurance and exposures periodically. The objective here is to increase the likelihood of rate reductions and better coverage. Failing to insure property which has been newly acquired or not eliminating insurance on property which has been disposed of are common errors which can be corrected by formal reviews. Competitive bidding has produced very large savings for many buyers.

6. Errors in insurance coverage
Included in this group are overlapping coverage, nonconcurrencies, inadvertent omission of coinsurance clauses or inclusion of coinsurance clauses, failing to render insurance reports on inventories when required, and inadequate procedures to establish both notice and proof of loss when loss occurs.

7. Failure to insure the serious exposures before the less severe exposures
A good example is the purchase of full coverage collision insurance or any collision insurance on an old automobile and neglect of placing coverage on large limits of liability under bodily injury exposures.

8. Failure to use insurance as a financial device
Use of insurance to reduce the size of cash reserves which would otherwise be necessary for various contingencies is an example of wise use of insurance for financial purposes. For example, life insurance on the president of the company or other key officers or stockholders can prevent losses to the firm which are serious enough to cause bankruptcy in case of death of important persons in the firm. Proper use of group life, or group health, or group pensions as employee incentives can be a significant tool in personnel policy.

9. Failure to keep insurance records
This includes keeping of loss records. Adequate insurance accounting can mean large savings when it comes time to renegotiate rates for coverages and in establishing proofs of loss.

10. Using self-insurance when certain conditions for self-insurance do not apply
Among the conditions which do not favor self-insurance are the following:
    a. Desire by management to avoid instability in profits in years of unusual loss. This condition is particularly likely when there are too few exposure units to produce loss stability.

b. Lack of adequate personnel to keep the necessary records and perform other insurance functions.
c. Desire by management to avoid unpleasant relations with employees or customers. Employee or customer relations can be damaged when losses are to be paid by the firm rather than an outside party. For example, in workmen's compensation, there are distinct advantages to having a third party deal with the injured employee.
d. There is need for important insurer services such as engineering inspection, glass replacement, etc.
e. Management expresses unwillingness or inability to set aside adequate financial reserves to absorb uninsured losses.[273]

What Professor Greene is suggesting is that the art of insurance management involves fine tuning insurance coverage to the needs of a specific organization. Professor Jerry Rosenbloom has devised an extensive risk analysis questionnaire to aid in securing appropriate coverage for any given organization. His questionnaire is reproduced in the appendix.

Insurance and Adventure Education

Like all industries adventure education organizations must have some insurance coverage for its programs, personnel and facilities. Providing coverage, for the most part, is fairly straight forward with the exception of liability insurance.

Liability insurance usually provides protection in cases of potential negligence. Claims for such cases are usually quite expensive for the insurer. This motivates the insurance company to limit its risks as much as possible by the use of legal limits, clauses, et al., in the insurance contract.

The administrator of an adventure program must be very aware before signing a contract (and before an accident occurs) of exactly what is covered and what remains exposed.

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[273] Mark R. Greene, Insurance Insights, op. cit., pp. 130-131.

The recent history of the South West Outward Bound School (SOBS) is a case in point. The school experienced an accident which resulted in several student deaths. They were unable to release the results of their investigation of the accident to the parents of the students involved under a directive from their insurance company. SOBS had not established in writing previously how much information could be released to others in the event of an accident.

This resulted in a sticky dilemma. On the one hand, if SOBS were to give out information to the parents (who repeatedly requested it) SOBS would have violated their written contract with the insurance company (a contract which called for total cooperation). Until the incident would cause the parties to go to court, the insurance company had a vested interest in keeping the information flow limited. If SOBS violated the agreement by releasing the information then the insurance company would have grounds to cancel the policy, leaving the school exposed to potentially catastrophic lawsuits.

On the other hand, by not giving out the requested information to the parents, SOBS further infuriated them. This "bad treatment" may have led several parents to wage a publicity war against the school. Such bad publicity lowers both enrollments and donations. This year SOBS has the lowest enrollment of any of the Outward Bound schools. Also, their enrollment this year is down from last. Clearly there may be other reasons for such a decline. However, the ripples from the accident and subsequent bad public relations cannot be discounted.

What is suggested by this example is that at the time of an accident an insurance company will act only in its own best interest and not in the interest of programs they have insured. This is common sense which is supported by numerous case histories in other industries.[274] Thus, administrators must safeguard in writing any policies or procedures which they would wish to retain in the aftermath of an accident.

To obtain the most efficacious coverage at the lowest cost this author suggests demonstrating to one's insurance company a thorough understanding and the on-going practicing of all aspects of risk management as explained in Chapters 3 and 4. This process of educating insurance companies is especially important since the adventure industry is still fairly young.

Some specific items to share would include (in no special order):

1. Safety record of the individual organization
   *Sound, adequate and accurate surveillance system
   *When and how the system is used
   *What the system is used for (provide examples of safety improvements)
   *Results of system (e.g., frequency of injury, et al.)
2. Safety record of other similar program
3. Written policy, procedures and guidelines for all programming
4. Standards for staff hiring, progression and supervision
5. Adequate staff training
6. Systems and procedures for handling emergencies
   *First, second, third priority tasks
   *Chain of command

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[274] Willie Hammer, Occupational Safety Management and Engineering (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), p. 195.

*How to handle press and public relations

7. Systems for detecting and correcting staff burn-out

8. Systems for detecting and correcting non-human hazards (provide examples of successes)

9. Real nature of the risks involved (objective versus subjective) in adventure programs

10. First-aid training and experiences for staff and students

11. Location of medical facilities nearby and adequate first aid equipment on site

12. Progressive training for students to handle the hazards of the wilderness

13. Other risk transfer techniques used by organization (e.g., liability releases, et al.)

14. Continuous inspection schedules for all facilities, areas and equipment by qualified personnel

15. The effective use of safety coordinators, safety committees

16. Top management's regular involvement in safety programs

17. Demonstrate involvement in national and/or regional associations that address the issues of safety (also other ways to maintain a program operating at the state of the art)

18. Demonstrate regular programmatic (and safety) peer reviews

19. Demonstrate willingness to utilize outside consultants/experts when needed.

20. Contingency plans for a sudden loss of key personnel.

21. Qualified personnel (in reference to safety) in top management positions

22. An understanding and identification of high risk participants

and methods for handling them.

This list is clearly not all inclusive. Yet, it is a start. Insurance coverage is critical for adventure education programs. Some programs in the past have found obtaining insurance to be an almost impossible task, or that the cost was too prohibitive.[275] Still others found that the best way to gain coverage was to obtain the status of being an "explorer post" with the boy scouts. Others have slid in under the umbrella of another major institution (university, state agency, etc.). The future looks much brighter as the insurance industry gains experience with adventure education--as more accident statistics are compiled. However, the Vision Quest accident was an illustration (in Chapter 3) of how one accident in one part of the industry can affect coverage in other organizations. This reality provides strong support for the work Jed Williamson and his safety committee are undertaking.

In this chapter the author has introduced a generalized conception of insurance as a component of the transfer process in risk management. No attempt was made to provide a comprehensive view of the insurance industry. Rather, insight was sought as to its costs, benefits, limitations, pitfalls, information needs, and management demands. One area of crucial importance to adventure programs is that of liability insurance. Since liability generally falls into the arena of jurisprudence this topic will be covered extensively in the following chapter.

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[275] Barbara Brown and Stephen Smith, "Issues Related to Municipal Recreation Agency Involvement," Parks and Recreation, Vol. 14, June, 1979, pp. 70-71.

Chapter 6

JURISPRUDENCE AND RISK MANAGEMENT

> Losses are the other side of the coin called 'risk.' Where there is risk, eventually there will be loss; and where there is loss, there must be a determination of how the loss is to be distributed. Are the victims to bear the loss? Is the government to bear the loss? Is some wrongdoer or other party to make good the loss? Has the loss been shifted by some contract or agreement? This problem of distributing losses, of deciding to let them fall where they may, or of shifting the burden elsewhere is a central problem of the law and of organized society.[276]

Jurisprudence plays a major role in a wholistic approach to risk management. It can provide both preventive and reparative functions.[277] Jurisprudence performs these functions by the clarification and assignment of certain responsibilities regarding risk. As such the legal system can prescribe ways to manage risks. The goal like that of safety engineering is not the total elimination of risk, rather the control and establishment of a proper level is what is sought. In this chapter the concept of legal liability will be introduced. Legal liability will be examined in terms of contractual arrangements involving insurance and tort law. Insight will be gained as to what is generally considered "correct," "reasonable" and "safe" conduct/practices. Lastly, a brief discussion will be held regarding current legal concerns in adventure education.

The goal of this chapter is not to provide a definitive examination of law and adventure. Rather, jurisprudence is a general, widely applicable system of rules as to what is "proper" (i.e., safe and reasonable). It can be utilized in the same way and for the same reasons as the risk management process described in Chapter Three.

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[276] Denenberg, et al., op. cit., p. 347.

[277] Stig Jorgensen, "Liability and Fault," Tulane Law Review, Vol. 49, No. 329, 1975, p. 329.

Legal Liability

> The term 'liability' is used in various ways in our present language. A general definition is: the state of being exposed to damage, danger, expense, etc.; responsible, answerable. In general usage, the term has become synonymous with 'responsibility' and involves the concept of penalty when a responsibility may not have been met.[278]

Legal liability is more specific than the definition provided above. An individual may be morally obligated to another to do or to not do a particular thing. The law, however, may not recognize a moral responsibility as being legally enforceable. Thus the term "legal liability" is narrower than moral obligation, since the courts and the law determine what a person may be legally liable for.[279] Roscoe Pound, the eminent jurist, described the legal methodology used in liability cases as "the situation whereby one may exact legally and the other is legally subjected to the exaction."[280]

Legal liability rules

> . . . have preventive and reparative functions in a general or abstract sense, because they contribute to maintaining notions of 'correct' behavior and to creating security through the expectation that redress may be claimed for damage due to 'incorrect' behavior.[281]

Understanding legal liability rules can give insight to adventure educators as to how they might manage their risks better.

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[278] Williams, Jr., op. cit., p. 98.

[279] Ibid.

[280] Roscoe Pound, An Introduction to the Philosophy of Law, rev. ed. (New Haven: Yale University Press, 1954), p. 74.

[281] Jorgensen, loc. cit.

Jurisprudence also has a role in determining the acceptability of certain risks. Harold Green of George Washington University points out:

> Legal criteria and procedures for determining societal acceptability of risk are established by governmental institutions performing legislative (i.e., deliberate formulation of rules with prospective application) and/or judicial (i.e., resolution of conflict on a case-by-case basis) functions. In both cases the law-making process reflects both the subjective preferences of the human beings who administer these institutions and their sense of societal attitudes.[282]

The courts often reflect what is considered "correct" behavior by a given society or community. Harvard University Professor William Lowrance suggests:

> The courts can be thought of as a forum for reappraising the worth of actions, relative to society's evolving collective moral convictions. By hearing charges of misrepresentation, mislabeling, negligence, and fraud, by resolving jurisdictional disputes among regulatory agencies, and by guiding the execution of public laws, the courts continually recalibrate the yardstick of social values.[283]

Stig Jorgensen further clarifies:

> It is not easy to say in general which degree of risk is tolerable. It depends on the different kinds of activities and the public interest in their performance. The weighing of the interests is calculated beforehand and formulated in rules and regulations. . . . It is, so to speak, legal to run many great risks if these dangerous activities are performed in accordance with certain technical rules which are increasingly formulated in statutes.[284]

Generally, legal liability falls into three categories of the law: contracts, torts, and crime.[285] Denenberg explains:

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[282] Harold Green, "The Role of Law in Determining Acceptability of Risk" in R. Schwing and W. Albers, Jr., eds. Societal Risk Assessment.

[283] William Lowrance, Of Acceptable Risk (Los Altos, California: William Kaufmann, Inc., 1976), p. 116.

[284] Jorgensen, op. cit., p. 338.

[285] Denenberg, et al., op. cit., p. 347.

> Liability can be conveniently classed as arising from contract or tort. Torts are private wrongs other than those based on contract. They include assault and battery, false imprisonment, libel and slander, and negligence. The term 'private' distinguishes them from crimes that are public wrongs, i.e., those for which criminal proceedings are designed to protect the public interest. The same act may be both a tort and a crime. Murdering one's neighbor is both a crime and a tort. Public interest is vindicated by criminal proceedings in the name of the state; the private wrong could be vindicated by a legal action for damages (a civil as opposed to a criminal case) instituted against the murderer by the representative of the deceased.[286]

Denenberg's explanation leads to a discussion of the two major classes of general legal liability, which are 1) civil liability and 2) criminal liability. Any industry must be concerned with both classes. However,

> . . . while avoidance of criminal liability is important as far as business or individual conduct is concerned, generally the risk manager's activities are confined to meeting the civil liability exposures, leaving these other problems to legal counsel and the conscience of those involved.[287]

Thus, a risk manager must be especially concerned with

> contractual liability, for failure to fulfill promises made in a legally enforceable agreement with one or more particular entities; and tort liability, for breaching a duty which is owned to some specific entity(ies) but which does not rest on any contractual relationship between the wrongdoer and the victim.[288]

Contractual liability and tort liability are distinct but related concepts. Denenberg again provides clarification:

> Despite the distinction. . . between tort and contract, there is a close relationship between the two bases of liability. First, tort liability may be assumed by contract, as in the case of the hold-harmless agreement. Second, some torts are parallel or are closely related to contract actions.

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[286] Ibid., p. 348.

[287] Williams, Jr., op. cit., p. 99.

[288] Head, op. cit., p. 47.

> A seller of defective goods may consequently be held liable for tort, negligence, or a breach of contract.[289]

Contract law is a highly detailed technical application of the general rules of liability. In the next section the author will briefly address the nature and function of contracts especially as they apply to risk management and insurance.

Contracts and Insurance

Black's Law Dictionary defines a contract as "a promissory agreement between two or more persons that creates, modifies, or destroys a legal relationship."[290]

One of the most important kinds of contracts for the risk manager is that of insurance.

> An insurance policy embodies nothing more than one kind of contract. A contract, in turn, is an agreement that the law recognizes as a binding obligation entered into by two or more parties. Unlike other legal obligations, it is based on the agreement of the contracting parties. Two or more parties are necessary for any agreement, and in an insurance contract, they are usually the insured and the insurer. The law of contracts embodies the rules that govern, directly or indirectly, the formation and carrying out of any contract, and the so-called 'law of insurance' is generally considered a branch of the law of contracts.[291]

Other kinds of contracts that are used to transfer liability were mentioned in earlier chapters: e.g., bonding, hold-harmless clauses. The principles governing insurance contracts are similar to those governing other types of contracts involving liability.[292] The following, in an attempt at brevity, will focus on the insurance contract.

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[289] Denenberg, et al., op. cit., p. 348.

[290] Henry Campbell Black, Black's Law Dictionary, Rev. 4th ed. (St. Paul, Minnesota: West Publishing Company, 1968), p. 305.

[291] Denenberg, et al., op. cit., p. 194.

[292] Williams, Jr., op. cit., p. 253.

Most contracts contain provisions which can be classified as 1) declarations, 2) insuring agreements, 3) exclusions, and 4) conditions:

> Declarations identify the insured, describe the property, activity, or life being insured; state the types of coverage purchased, the applicable policy limits, and the term of coverage; and indicate the premium paid for each separate coverage purchased.[293]
>
> Insuring agreements state what the insurer promises to do. The insuring agreements describe the characteristics of the events covered under the contract. A section of the insuring agreements may also define certain terms used in the contract.[294]
>
> Exclusions limit the coverage provided under the insuring agreements. They may exclude certain perils, property, sources of liability, persons, losses, locations, or time periods.[295]
>
> Conditions define terms used in the other parts of the contract, prescribe certain conditions that must be satisfied before the insurer is liable, and may describe the basis for computing the premium. Most conditions describe the rights and obligations of the insured and the insurer following a loss.[296]

Fully understanding these provisions are important for the risk manager.

Business professor Arthur Williams, Jr., suggests asking the following questions when analyzing an insurance contract:

1. Under what circumstances would the insurer be responsible for the loss? What events are covered?
    a. What perils are covered?
    b. What property or source of liability, or whose life or health, is covered?
    c. What persons are covered?
    d. What losses are covered?
    e. What locations are covered?
    f. What time period is covered?

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[293] Williams, Jr., op. cit., p. 268.

[294] Ibid.

[295] Ibid.

[296] Ibid., p. 265.

g. Are there any special conditions that do not fall into any of the other six categories that may suspend or terminate the coverage?

2. If the insurer is responsible for the loss, how much will it pay?

3. What steps must the insured take following a loss?[297]

Such questions like the above (and those found in the appendix) are crucial to utilizing insurance as a buffer for liability. There are four conditions that must be satisfied for a contract to be legally enforceable.

> These four conditions and their special application to insurance are:
>
> 1. The contract must serve a legal purpose. It must not be contrary to public policy. An insurance contract, for example, cannot protect a person against damages awarded as a result of harm that person intentionally causes to the person or property of some other person.
>
> 2. There must be a definite offer by one party and an acceptance of that offer by the other party. If the person to whom the offer has been made refuses to accept the offer without some modification, he or she is considered to have made a counteroffer, which must be accepted by the other person before the agreement is effective. In property and liability insurance, technically the applicant makes an offer to the insurer, which accepts the offer, rejects it, or makes a counteroffer. The insurance agent usually has the power to accept the offer on behalf of the insurer he or she represents, and the contract is effective as soon as the agent agrees to bind the coverage.
>
> 3. Each party to the contract must be required to make some consideration on behalf of the other party. The contract is not enforceable unless one party gives up a right, power, or privilege that he or she already has in exchange for an equivalent renouncement by the other. The contract is enforceable, however, even if one person promises to do much more than the other. Under an insurance contract, the insured must pay or promise to pay a premium and meet certain conditions stipulated in the contract. The insurer must promise to make certain payments or provide certain services in case of loss.

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[297] Ibid., pp. 255-256.

4. The parties to the contract must be legally competent. Insane or intoxicated persons are not considered competent. Minors (persons under eighteen in some states and under twenty-one in others) may void a contract to which they are a party, except a contract for 'necessities' (food, clothing, and shelter, for example), if they do so during their infancy. Only the minor has the option, however, and if he or she chooses not to void the contract, it is valid.[298]

Although insurance is a typical kind of contract it does contain several unique features as can be found in the following list of prevailing characteristics:

Personal Contract

Insurance contracts are personal contracts. Although the subject of a property insurance contract, for example, is a piece of property, the insurance contract insures a person or persons, not the property. Suppose the insured is the owner. If the owner sells the property to someone else, the new owner is not insured under that contract unless the insurer agrees to an assignment of the contract to the new owner; the identity of the insured is an important factor in the insurer's decision to insure the property. On the other hand, an insurance contract may create rights for persons other than the insured such as a mortgagee under a standard mortgagee clause or the beneficiary under a life insurance contract. Life insurance contracts are personal contracts in the sense that the insurer is interested in the identity of the person purchasing the contract; but after the contract is issued, it can be assigned to anyone without the consent of the insurer.

Unilateral Contract

Insurance contracts are commonly called unilateral contracts. After the insured has paid the premium or premium installment and the contract has gone into effect, only the insurer can be forced to perform, because the insured has fulfilled his or her promise to pay the premium. On the other hand, if the insured does not pay the complete premium on the due date (as in the case of an assessable contract or an order placed on the phone) but promises to do so in the future, both parties have made promises to perform in the future, and the insurance contract is bilateral.

Conditional Contract

Insurance contracts are conditional contracts. Although only the insurer can be forced to perform after the contract is effective, the insurer can refuse to perform if the insured does not satisfy certain conditions contained in the contract. For example, the insurer need not pay a claim if the insured has increased the chance of loss in some manner prohibited under the contract or has failed to submit a proof of loss within a specified period.

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[298] Ibid., pp. 255-256.

Aleatory Contract

Insurance contracts are aleatory contracts; i.e., the obligation of at least one of the parties to perform is dependent upon chance. If the event insured against occurs, the insurer will probably pay the insured a sum of money much larger than the premium. If the event does not occur, the insurer will pay nothing.

Contract of Adhesion

Insurance contracts are usually contracts of adhesion. The insured seldom participates in the drafting of the contract although risk managers of large firms may occasionally do so and this practice is apparently becoming more common. Usually the insurer offers the insured a printed document on a take-it-or-leave-it basis. Courts frequently refer to this characteristic of insurance contracts when they interpret ambiguous provisions in favor of the insured.

Contract uberrimae fidei

Insurance contracts are contracts of the utmost good faith. Both parties to the contract are bound to disclose all facts relevant to the transaction. Neither party is to take advantage of the other's lack of information. The legal questions involving this characteristic usually center on the disclosure of information by the insured.

Contract of Indemnity

Property and liability insurance contracts are, subject to certain exceptions, contracts of indemnity. The person insured under these contracts should not benefit financially from the happening of the event insured against. Life and frequently health insurance contracts are not contracts of indemnity.[299]

Liability insurance is a surprisingly recent development of the insurance industry. Currently, it is "one of the most important and dynamic lines of insurance."[300] However,

> . . . the liability insurance policy, even in its most advanced forms, falls far short of insuring against every conceivable form of liability. This fact is a result of historical development, as well as the inability of certain forms of liability

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[299] Ibid., pp. 253-254.

[300] Denenberg, et al., op. cit., p. 363.

> to be insured. Contractual liability arising out of the breach of contracts to deliver goods, and other speculative risks, are not considered insurable; they represent risks that the businessman himself must absorb. Liability insurance has concentrated on insuring against tort liability, but also offers protection against tort liability assumed by contract, and certain contractual liabilities closely related to or coinciding with tort liabilities.[301]

Because of the limitations of liability insurance an organization must utilize its other risk control options-- whenever possible, i.e., risk avoidance, loss prevention, loss reduction, combination of loss exposures, et al.[302]

To fully utilize all the options available a risk manager needs a basic understanding of the area of law called "torts." The premise is that a knowledge of torts can generally be considered a guide to safe conduct. Safe conduct is a component of loss-control as was described in Chapter Four. An introduction to tort laws and liabilities follows.

Tort Liability

Is legal liability a concern for adventure educators?

> A recent survey on the 'risk revolution' indicated that legal liability is an area of concern for park and recreation administrators; in fact, up to 50 percent of the survey respondents reported such liability is a 'frequent' or 'constant' problem with some high-risk activities.[303]

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[301] Ibid., p. 368.

[302] Head, op. cit., p. 47.

[303] Janna Rankin, "Legal Risks and Bold Programming," Parks and Recreation, Vol. 12, No. 7, 1977, p. 47.

There has been a tremendous amount of research and publications that has focused on the area of tort liability and teachers.[304,305,306,307] An area of study of closer interest to adventure education is that of tort law and physical education.[308,309,310] Recently, the topic of adventure education and legal issue has been addressed in studies and publications.[311,312,313,314,315,316] Rather than attempting to duplicate those

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[304] Rennard Strickland, Janet Phillips, and William Phillips, Avoiding Teacher Malpractice (New York: Hawthorn Books, Inc., 1976).

[305] Daniel Gatti and Richard Gatti, The Teacher and the Law (West Nyack, New York: Parker Publishing Company, Inc., 1972).

[306] Laurence Kallen, Teachers' Rights and Liabilities under the Law (New York: Arco Publishing Company, Inc., 1971).

[307] Edward Bolmeier, Teachers' Legal Rights, Restraints, and Liabilities (Cincinnati, Ohio: The W.H. Anderson Company, 1971).

[308] Duane Stremlau, Tort Law: Negligence and Liability in Physical Education with Reference to Higher Education (Doctoral Dissertation, University of Wisconsin, Madison, 1976).

[309] Herb Appenzeller, From the Gym to the Jury (Charlottesville, Virginia: The Michie Company, 1970).

[310] David Mohler and Edward Bolmeier, Law of Extracurricular Activities in Secondary Schools (Cincinnati, Ohio: The W.H. Anderson Company, 1968).

[311] Jerry Hanson, Legal Implications of Liability for Negligence Torts in the Leisure Profession (Doctoral Dissertation, University of Utah, Salt Lake City, 1975).

[312] Rankin, "Legal Risks and Bold Programming," loc. cit.

[313] Arthur Frakt, "Adventure Programming and Legal Liability," Journal of Physical Education and Recreation, Vol. 49, No. 4, April, 1978, pp. 49-51.

[314] Janna Rankin, "The Legal System as a Proponent of Adventure Programming," Journal of Physical Education and Recreation, Vol. 49, No. 4, April, 1978, pp. 52-53.

[315] Betty van der Smissen, "Minimizing Legal Liability Risks," Journal of Experiential Education, Vol. 2, No. 1, Spring, 1979, pp. 35-41.

[316] van der Smissen, Legal Liability--Adventure Activities, loc. cit.

studies the following will introduce some of the concepts and issues which are common to all, i.e., tort laws and rules.

The word "tort" is derived from the Latin tortus, meaning "twisted."[317] In common usage the word generally means wrong. In terms of the law "a tort is a civil wrong other than breach of contract for which the court will provide a remedy in the form of an action for money damages."[318] However, this definition may not be totally acceptable to all.

> . . . Prosser (an eminent jurist) indicates that there is no satisfactory definition for the word 'tort' and that it might be better to define a tort action by enumerating the things that it is not. Prosser says that a tort is not a crime; it is not a breach of contract; it is not necessarily concerned with property rights or problems of government. Tort occupies a large residual field of other types of legal actions. In this sense, tort is a sort of legal garbage can to hold what cannot be put elsewhere in the law. The field of tort law is based upon the entire legal structure and is so interlocked at every point with property, contract, and other accepted classifications, that any specific arbitrary classification becomes meaningless . . . It is important to note that not every tort must have a name. New and nameless torts are being recognized continuously.[319]

Most jurists agree that there are basically three kinds of torts:

1. Intentional torts-- involving conduct that may be by intention or design (but not necessarily with the intention that the resulting consequences should occur),
2. Unintentional torts-- involving the failure to act or acting not as a reasonably prudent person would have acted under similar circumstances, and
3. Wrongs for which a business may be held absolutely or strictly responsible. Intent or fault is not an issue under absolute or strict liability.[320]

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[317] Williams, Jr., op. cit., p. 102.

[318] Ibid.

[319] Ibid.

[320] Ibid., p. 103.

Intentional Torts

There are a large variety of intentional torts--all of which the educator may encounter within his daily activity. Understanding such torts can provide guidelines for action designed to prevent or limit damage from tortious conduct. The following provides a brief explanation of several types of intentional torts:

Trespass

Trespass consists of the entry of a person or a thing upon the land in the possession of another without permission. This action is designed to protect the exclusive possession of land and its physical status or condition. Persons who may be in actual or exclusive possession of property can maintain the action although they may not have legal title or are themselves in a wrongful occupation.

Conversion

Conversion is the act of interference or dominion over personal property. It may be committed by acquiring possession of the goods or intangibles with the intent to assert a right in them that is adverse to the owner, or by transferring them in a manner that deprives the owner of control. Any serious damage or misusing of personalty in defiance of the owner's rights has likewise been viewed as conversion.

Assault

When the plaintiff is placed in apprehension of immediate harmful or offensive contact with the defendant, the threatening acts that cause the plaintiff to fear for his or her person or property give rise to the intentional tort of an assault. Generally speaking, mere words, however violent, are not sufficient to amount to an assault. In order to have the essentials of an assault, there must be a clear and present danger evident to the plaintiff and the apparent ability by the defendant to execute the threatened act.

Battery

Battery is an unpermitted and unprivileged contact with another caused by acts intended to result in the possible effect of harm or apprehension as the result of the contact. The least touching of another in anger has been held to be a battery. The gist of the action for battery is not the hostile intent to execute the touching but rather the absence of consent of the innocent party.

False Imprisonment

False imprisonment or arrest is the illegal and unlawful confinement of another within boundaries fixed by the defendant without legal justification and with the intention that the act or breach of duty shall result in such confinement. The restraint may be by means of physical barriers or by threats of force, either or both of which intimidate the plaintiff into compliance with the orders. The restraint upon the plaintiff's freedom may also be imposed by the assertion of legal authority that the defendant contends he or she possesses. The duty not to confine another or restrict his or her freedom is the basis for the action, and recovery has been allowed even though the detainment was caused by innocent acts of the defendant. For example, in Talcott v. National Exhibition Co., 144 App. Div. 337, 128 N.Y. Supp 1059 (1911), the baseball park was held liable for failing to inform a business visitor of the exit after the main entrance closed because of the crowd.

Libel and Slander (defamation of character)

Libel and slander are tort actions that involve the invasion of the interest, reputation, and good name of a person by communicating to others information that diminishes the esteem in which the plaintiff was held, or excites adverse feelings or opinions against the plaintiff. Defamation is usually made up of the twin torts of libel and slander, the first being written, the other, oral. The courts have held that an allegation of insanity, an assertion that a woman has been raped, or other language that holds the plaintiff up to hatred, contempt, or ridicule or would cause the plaintiff to be shunned or avoided is a proper action for defamation. The courts similarly have held that to allege that the plaintiff has attempted suicide, refused to pay just debts, is immoral or unchaste, is a coward, a drunkard, a hypocrite, a liar, or a crook, or to make any other oppressive, insulting, or dishonorable accusation is defamation. Ridiculing and making fun of the plaintiff have also been held to be defamatory in nature. In the case of libel and slander, of course, truth is always a defense, and the failure to prove the falsity of the charge would defeat the action.

Normally, proof of special damages is required; mere hurt feelings are not sufficient. On the other hand, the courts very early have established certain specific exceptions to the showing of special damages; these include the allegation that the plaintiff has committed specific crimes or possesses a loathsome disease, holding the plaintiff up to ridicule in his or her business, trade, profession, or office, and possibly the allegation that the plaintiff is given to unchastity.

Other Intentional Torts

In addition to the above intentional torts, many others have been recognized by the courts under varying circumstances. For example, invasion of privacy, malicious and unlawful prosecution, interference with family relations, and interference with contractual relations are some of the other so-named torts.[321]

Some intentional torts such as assault and battery are clearly, although not necessary, criminal in nature. The adventure educator in an attempt to "impell" students into experience (especially if the students are labeled delinquent) may sometimes be subjected to conduct that borders on an intentional tort.

Lawyers Gatti and Gatti have prescribed the following six guidelines and principles for teachers who wish to guard against intentional torts.

1. If a person is made afraid for his immediate personal safety, the tort of assault has occurred.
2. Assault generally precedes a battery, and the latter can sometimes be prevented by taking appropriate steps of discipline at the assault stage.
3. In the school, you are a substitute for the parent. Therefore, you have the power to administer moderate correction to your students. (doctrine of *in loco parentis*)
4. You may detain a student within fixed boundaries.
5. You may temporarily confiscate a student's personal property, but you may not permanently retain possession.
6. Libel and slander should not be condoned anywhere. This includes faculty rooms and administration offices.[322]

Although intentional torts are significant, legal authorities have estimated that "approximately 90 percent of the cases brought for personal injury or property damage involve the unintentional tort of negligence."[323]

Unintentional Torts: Negligence

This section of the law is extremely significant for all educators--

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[321] Ibid., pp. 103-105.

[322] Gatti and Gatti, op. cit., p. 35.

[323] Williams, Jr., op. cit., p. 105.

especially those who teach in environments that contain elements of physical risks. Negligence is at the heart of unintentional torts. Legally, negligence has been defined as:

> The omission to do something which a reasonable man, guided by those ordinary considerations which ordinarily regulate human affairs, would do, or the doing of something which a reasonable and prudent man would not do.[324]

Negligence can be further divided into three types:

> Malfeasance--the doing of an act which is wholly wrongful and unlawful; the doing of an act which person ought not to do at all or the unjust performance of some act which the party had no right or which he had contracted not to do.[325]
>
> Misfeasance--the improper performance of some act which a man may lawfully do.[326]
>
> Nonfeasance--nonperformance of some act which ought to be performed, omission to perform a required duty at all.[327]

Negligence can be further classed as ordinary which "results from carelessness without undue disregard for the safety of others,"[328] or gross. Gross negligence is seen as "conduct involving failure to use even slight care, a complete lack of regard for the safety of others, or intentional failure to perform a required and apparent duty regardless of the severity of the consequences of this act."[329] These categories have been prescribed by various legislative bodies for the communities they serve. Thus, an act done in one place by certain individuals may be considered one class of negligence. However, if done in another location it may be classed differently.

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[324] Black, op. cit., p. 1184.

[325] Ibid., p. 1109.

[326] Ibid., p. 1151.

[327] Ibid., p. 1208.

[328] Stremlau, op. cit., p. 32.

[329] Hammer, op. cit., p. 14.

Traditionally, there are two criteria used in the assigning of fault in cases of negligence. First, there is the test of foreseeability. Could and should an accident have been foreseen by the instructor? Second, if an accident was foreseen could it have been avoidable?[330] Foreseeability and avoidability are important concepts--but for whom?

> The degree of care demanded of a person at a certain occasion is the result of three factors: the likelihood that his conduct will injure others, taken with the seriousness of the injury, if it happened and balanced against the interest which he must sacrifice to avoid the risk. The person who is thought to make this calculation is the reasonable man or the bonus pater familias.[331]

The courts today still use the concepts of foreseeability and avoidability by a "reasonable man" when determining who is at fault in a lawsuit. These principles are further refined by the concepts of duty and standard of care.

Duty is defined by Prosser as ". . . an obligation, to which the law will give recognition and effect, to conform to a particular standard of conduct toward another."[332] ". . . duty is inherent in nearly every situation in which a teacher, coach, recreation leader, or administrator might be actively engaged."[333]

The standard of care may be defined as "that behavior which a person of ordinary prudence. . . would engage in under similar circumstances."[334]

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[330] Jorgensen, op. cit., p. 332.

[331] Ibid., pp. 332-333.

[332] William Prosser, Handbook on the Laws of Torts (St. Paul, Minnesota: West Publishing Company, 4th ed., 1971), p. 324.

[333] Betty van der Smissen, Legal Liability for Injuries in Recreation and Parks (Cincinnati, Ohio: The W.H. Anderson Company, 1968), p. 52.

These definitions of duty and standard of care are further modified by who is involved in the activity. The standard of care is generally considered greater for children than adults.[335] Activities conducted by "professionals" (or considered professional activities) generally carry a larger duty and standard of care.[336] Both of these considerations are important as the adventure education industry becomes a profession and works with younger and more diverse populations.

Different degrees of care are afforded individuals who are classed as trespassors, licensees, or invitees when they visit a particular property or program. Basically, each class is afforded more care as one moves from being a trespassor to an invitee. A trespassor is defined as "a person who enters or remains upon land in the possession of another without a privilege to do so."[337] A child may or may not be given the status of trespassor depending on the facts in the case.[338] A licensee "describes a person who enters the premises with the owner's consent and nothing more."[339] An invitee "is one who enters the premises in answer to an expressed or implied invitation by the owner."[340] Students are obviously considered invitees.

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[334] Leroy Peterson, Richard Rossmiller and Marlin Volz, The Law and Public School Operation (New York: Harper & Row, 1969), p. 291.

[335] Stremlau, op. cit., p. 28.

[336] Jorgensen, op. cit., p. 338.

[337] Prosser, op. cit., p. 357.

[338] Stremlau, op. cit., p. 30.

[339] Ibid., p. 31.

[340] Peterson, Rossmiller, and Volz, op. cit., pp. 291-292.

Another important area of legal concern for determining fault in a given case is the doctrine of *proximate cause*.

> To establish negligence and liability, it must also be proved that the breach of duty by the defendant was the proximate cause of the injury and loss sustained by the complainant. There must be a direct and unbroken chain of events which exist between the breach of duty and injury sustained.[341]

Given all the above, one can see that there are clearly four criteria that must be present to demonstrate a case of negligent tort:

1. *Legal duty to act or not act*. Legal duty implies that the plaintiff can show that the defendant should have used a legal duty of care in acting or failing to act in the manner involved. A legal duty of care is the normal basis of proving or showing existence of negligence. The duty varies depending upon the situation and the parties involved.

2. *The breach of legal duty*. Similarly the plaintiff must prove that the defendant clearly breached the legal duty to act or not act as a reasonably prudent person would have done under similar circumstances. The definition of a 'prudent person' also varies depending upon the circumstances.

3. *Proximate cause between the breach of duty and the injury suffered*. The plaintiff must show that the breach of legal duty by the defendant was the *proximate or closest cause* in producing the injury to the plaintiff. Showing that the defendant's negligence truly caused the injuries complained of is, of course, a very troublesome area in law. The facts are often very complex and involve possible other intervening forces.

   The doctrine of proximate cause draws a circle around the scope of responsibility of the negligent offender and attempts to cut off those liabilities that he or she in fact and according to public policy should not be responsible for. The courts use language and phrases to express the doctrine and policy questions concerning the extent and duration of a negligent act. For example, the courts inquire as to whether or not the defendant could have foreseen the consequences of the act when he or she engaged in it, whether the defendant created an unreasonable risk of harm to others, and whether the injuries were within the foreseeable consequences of the negligent acts. In addition, the plaintiff's interest must be in the zone of risk, namely, sufficiently close to the actual commission of the negligence in the first place, in order to make it foreseeable; there must be no separate intervening cause; and the physical forces unleashed by the defendant must bear some relationship to the ultimate injury that the plaintiff suffers.

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[341] Stremlau, op. cit., p. 34.

4. Injuries sustained. In the showing of injuries in a negligence action, the plaintiff may allege actual bodily injury or damage to property. In addition, the courts are allowing recovery for mental suffering and pain or emotional distress caused by the alleged shock imposed as a result of the defendant's conduct. In a recent case involving the invasion of the right of privacy (which happens to be an intentional tort) the court allowed recovery to a mother who was making delivery of her child when the doctor allowed a nonmedical person in the delivery room to watch the actual birth. The mother sustained humiliation and mental suffering as a result of such conduct, and the court allowed recovery to her for her mental distress. Another recent court case allowed recovery to a woman who was almost hit by an oncoming vehicle. The mental anxiety resulting from such a near miss produced shock and mental injury to the plaintiff for which the court allowed recovery.[342]

All of the above must be present to justify a claim of negligence except with the doctrine of res ipsa loquitur -- "the thing speaks for itself." The conditions usually stated as necessary for this doctrine to be employed are:

1. The accident must be of the kind which ordinarily does not occur in the absence of negligence; and
2. It must be caused by an agency within the exclusive control of the defendant. . . . This doctrine shifts the burden of proof to the defendant, he or she must show the absence of specific involvement with the facts alleged by the plaintiff.[343]

Because of the highly technical nature of this kind of litigation a competent attorney is essential. "It has been said that 'he who attempts to litigate his own case has a fool for a client.'"[344]

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[342] Williams, Jr., op. cit., pp. 105-106.

[343] Ibid., pp. 100-101.

[344] Ibid., p. 101.

Once a case has been legally resolved money (legally called damages) may be awarded to those who suffered injury.

> Damages may be special, general, or punitive. Special damages are the tangible losses incurred by the plaintiff such as the loss of earnings, medical bills, property repair costs, and legal fees. General damages may be allowed where the conduct of the defendant is grossly negligent, reckless, and done without regard to life or property.[345]

Legal researchers have found at least twenty-seven different kinds of damages that are being awarded by the courts.[346]

There is another type of tort that arises from a concept of strict liability.

Absolute or Strict Liability Torts

> The application of the principle of liability without fault--absolute or strict liability--in effect turns certain cases of potential defendants into 'insurers' who are liable for any damage caused by certain conditions and agencies that are 'apt to get out of hand or to damage.' regardless of whether they are at fault. The owner of a wild animal or a domesticated animal known to be dangerous is liable for any personal injuries inflicted by the animal, even if the owner is not negligent. There is some authority for the view, but not universal agreement, that even an act of God or an unforeseeable intervening cause will not excuse the defendant.
>
> The doctrine of absolute liability has been extended by some courts to cover damage caused by trespassing animals of all kinds, some extra-hazardous activities (e.g., blasting), and the escape of certain inanimate destructive forces (e.g., water from a dam).[347]

There is a disagreement among legal and insurance scholars as to whether there is an increased trend toward absolute liability.[348,349]

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[345] Ibid.

[346] Hansen, op. cit., p. 199.

[347] Denenberg, et al., op. cit., p. 355.

[348] Jorgensen, op. cit., pp. 344-345.

[349] Mark Greene, Risk and Insurance, 3rd ed., op. cit., p. 328.

Understanding torts, i.e., intentional, unintentional, and those arising from strict liability, provides the basis for defending against them. The next section discusses defenses that are used in tort actions.

Legal Defenses For Torts

This section will attempt to briefly discuss the common defenses that are involved in a tort case. These defenses can serve as guides to the proper conduct of a program.

Criteria for Negligence Not Met

The four criteria for negligence established earlier must all be proven for negligence to be found. Thus, the best defense is to demonstrate that one or more of the four elements has

> . . . not been proven--that a duty was not owed the injured, that reasonable care was exercised in performance of the act, that the act was not the proximate cause of the injury, or that there was not in fact injury to the plaintiff.[350]

A defendant may also attempt to show that the accident was unforeseeable and/or unavoidable.

Assumption of Risk

> Assumption of risk is often used as a defense to negligence. If a person knows of a dangerous condition or activity, but voluntarily ignores the danger, he or she is said to assume the risk of any injury which results.[351]

This defense has two important requirements:

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[350] Betty van der Smissen, Legal Liability for Injuries in Recreation and Parks, op. cit., pp. 93-94.

[351] Richard Gatti and Daniel Gatti, Encyclopedia Dictionary of School Law (West Nyack, New York: Parker Publishing Co., Inc., 1975), p.30.

> First, the plaintiff must know and understand the risk which is about to be incurred; and second, the choice to incur such danger must be free and voluntary.[352]

Age, mental ability and other factors are important considerations. For adventure educators the assumption of risk doctrine impacts on two elements of programming: 1) the educational philosophy which calls for "impelling" people into experience (impell versus compell) and 2) perceived versus objective risk. Since students usually don't fully understand the risks involved an instructor must prohibit them from taking too great a risk.[353] Hold-harmless clauses in contracts are ways to indicate but not confirm an assumption of risk.

Contributory Negligence

Prosser defined the doctrine of contributory negligence as

> . . . conduct on the part of the plaintiff, contributing as a legal cause to the harm. . . suffered, which falls below the standard. . . required . . . for his own protection.[354]

If a plaintiff did anything which even slightly led to their own injury (i.e., failed to act in a reasonable and prudent manner in the given situation) they may be denied any damages in the suit. Reasonable and prudent is interpreted commensurate with their given age, experience, and capacity of intelligence.[355]

Clearly, this doctrine is harsh in its judgments on plaintiffs.

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[352] Stremlau, op. cit., p. 44.

[353] van der Smissen, Legal Liability for Injuries in Recreation and Parks, op. cit., pp. 94-95.

[354] Prosser, op. cit., pp. 416-417.

[355] van der Smissen, Legal Liability for Injuries in Recreation and Parks, op. cit., p. 98.

Last Clear Chance

The last clear chance doctrine developed as an extension of the doctrine of contributory negligence. Basically, the doctrine

> . . . is not a defense for the defendant, but rather an allegation by the plaintiff that the defendant should be held liable in spite of the plaintiff's contributory negligence. . . . If the injured (plaintiff) through his own negligence puts himself into a dangerous position. . . (and) could not help himself out of danger (contributorily negligent), and the defendant seeing the plaintiff's peril and having the last clear opportunity to avoid the inflicting of the injury by ordinary care, . . . (failed) to so exercise such care, . . (then the said defendant was legally) responsible.[356]

For adventure educators the message is clear. They must be in positions to protect students and then act to provide protection.

Comparative Negligence

Since an injury is often the combined fault of both the plaintiff and the defendant(s) an approach to the apportionment of damages has emerged.

> Comparative negligence in general allows a plaintiff who has contributed only slightly to his own injury to obtain a proportionate settlement rather than be barred from recovery. Comparative negligence statutes have been created in several states and are an exception to the common-law doctrine of contributory negligence.[357]

Intervening Acts

Intervening acts, intervening causes and intervening forces are all terms adopted by the courts to handle cases which attempt to determine ". . . whether a defendant is to be held liable for an injury. . . (caused through his substantial) contribution, when it is brought about by a later cause of independent origin. . . ."[358]

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[356] Ibid., p. 100.

[357] Stremlau, op. cit., p. 40.

In a given case there may be an unsafe condition caused by the defendant. Yet, if there is another intervening proximate cause for the injury that is not foreseen then the defendant would not be found negligent.[359]

Ultra Vires Act

The defense of ultra vires is a claim by a corporate or governmental agency of immunity since the act causing the injury was committed outside of the scope of its authority.[360] This defense works only for corporate or governmental entities; it may not be utilized by an individual. This defense is not very strong and appears to be used less and less.

Governmental Immunity

"The doctrine of governmental immunity attempts to raise a bar to liability based on the grounds that the act in question was part of a governmental function."[361]

Simply speaking, any agent or agency of the government (e.g., colleges, correctional agencies, et al.) may be immuned from suit by legislative statutes which prohibit such suit. However, the activity involved must fall within its scope of authority and function.

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[358] Prosser, op. cit., p. 270.

[359] Stremlau, op. cit., p. 47.

[360] Ibid., p. 48.

[361] Ibid., p. 35.

Act of God

This defense is basically self-explanatory. "No liability attaches when the proximate cause is an act of God, a condition caused by the natural elements."[362]

The only question applied to this defense is that of foreseeability. If an instructor could foresee that a storm was coming and failed to remove students from the mountain top, then the act of God that caused the injury, lightning, could not be used as a defense.

Joint Tortfeasors and Contribution

> While not a defense per se, contribution is a means of allowing the co-defendants or joint tortfeasors in a tort action to share assessed damages. . . . This rule was based on a judicial unwillingness to make relative judgments regarding the degree of fault attributable to each of the defendants. . . . In general, the law of contribution requires the tortfeasors to share the cost of liability equally, irrespective of the relative degrees of fault.[363]

Slowly, the rule of contribution is evolving where degrees of fault are reflected by the degree of judgment made in case.

All of these defenses can be looked at as guides to preventing a tort and therefore an accident from occurring.

Adventure Education and Legal Liability

As mentioned earlier there are numerous publications that focus on legal liability and adventure programs. In seeking brevity, this literature will not be reviewed directly in this paper. However, the author strongly recommends this material to all adventure programmers and administrators.

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[362] van der Smissen, Legal Liability in Recreation and Parks, op. cit., p. 92.

[363] Stremlau, op. cit., p. 49.

One area of interest is that many authors have developed check lists that would help an adventure educator control the safety and/or legal liability elements found in their programs. Several of the more pertinent ones are reproduced in the appendix.

The question arises as to whether adventure programming is very susceptible to legal liability. Professor of Law Arthur Frakt:

> One would search long and unsuccessfully for any instances in which injuries arising out of properly organized adventure programs have resulted in liability on the part of the program, or its leaders, instructors, or supervisors. This absence of reported decisions is striking, given the recent increase in both the number of participants and the variety of adventure programs. . . . On deeper reflection, there are sound legal reasons why adventure programming is less likely than other organized leisure activity to result in program liability. . . .[364]

Frakt suggests four reasons for the lack of suits: 1) because the programs take place in undeveloped areas--hence the required duty is less; 2) there is no strict liability in this profession yet; 3) there is a clear assumption of risk by those who participate; and 4) contributory negligence is a viable defense. Frakt concludes that there is little evidence that adventure programs inherently run high legal liabilities.[365]

In this chapter the author has introduced the concept of legal liability, contracts and insurance. A focus was made on the three kinds of torts, i.e., intentional, unintentional (negligence) and those arising from strict or absolute liability. This was followed by an introduction to the common defenses involved in tort litigation. No attempt was made to be specific. Rather, general insight was the goal. The hope is that the general legal principles when applied by the specific administrator can add to his overall approach to the management of risk. The intent of the author is nicely conveyed by lawyer Janna Rankin:

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[364] Frakt, op. cit., p. 49.

[365] Ibid.

> . . . It is neither necessary nor desirable for the recreation professional to learn and practice law prior to initiating innovative risk programming. What is necessary is for the programmer to utilize the special skills of recreation education and experience to make informed judgments which will account for not only the participant's physical safety and the agency's need to be free of litigation, but also the requirements of balanced program opportunities and the participant's needs for challenging, risk-incurring experiences.[366]

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[366] Rankin, "Legal Risks and Bold Programming," op. cit., p. 69.

Chapter 7

CONCERNS, ANALOGUE, EPILOGUE

The person who voluntarily seeks out risks and stress is walking a tightrope between death and death. On one side of the tightrope lies the annihilation of the self by the limiting, denial, or demeaning of one's own potential for full development. On the other side is a physical death, brought about by too closely caressing some peril.

Institutions that seek to facilitate and foster such tightrope-walking bear immense ethical responsibilities. The foremost of these is attempting to catalyze all levels of participation (i.e., administration, instructors, participants, professional associations, government, and higher educational institutions) into assuming their individual responsibility for the management of risk. The following examples clarify this.

Concerns

Administrators

They must be concerned with managerial issues that lead to and enhance staff "burn-out." Since "burn-out" can occur while a staff member is still working, safety may be compromised. Should staff be removed earlier?

What expectations are overtly or covertly given to staff? Former Outward Bound instructor Jasper Hunt has described a situation where an administrator at an experiential education school gave out an expectation that all staff must have high technical skill at rock climbing. The way this was shown at the school was to take students on technical climbs. One instructor, seeking approval, took his students on a climb where his skill was barely competent enough to keep himself safe. No accident occurred.[367] Yet, there seems to be an ethical question involved in his actions. Dan Meyer's research confirms the importance of such ethical questions.[368]

Administrators must not rely solely on the cheapest form of training staff, e.g., apprenticeships. Apprenticeships occur when a newcomer (assistant instructor or intern) is matched with a senior instructor for a course. Three reasons why this is non-efficacious when used as the only form of training will be given: first, there is little time for learning while a course is going on (i.e., learning where an assistant can practice skills and experiment again and again). Much of the course, especially if it is a "stress/challenge" program, is fast-paced. A good instructor may not have the energy to tutor an assistant at those breaks in schedule where the concern for the safety of the students is not an issue. Second, the senior instructor may be either "burnt-out" or on the way. This would leave the assistant to learning bad habits and/or attitudes. Third, all staff need personal renewal occasionally which may not occur if a person works course after course after course. Other forms of staff training besides the apprenticeship model could perform this renewal function.

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[367] Jasper Hunt, Some Preliminaries to a Philosophy of Experiential Education (Mankato State University, Unpublished paper, 1979), p. 24.

[368] Meyer, op. cit., p. 12.

Instructors

Instructors must maintain a sense of autonomy and concern for self. This means an instructor must be honest in terms of his/her limitations and attributes. They must not lead when they are not up to it. They must not give all of themselves to others so that all that remains is a shell devoid of emotional or spiritual essence. To do so would be a crime against self.

Instructors who do not regularly go out on expedition or risk-take on their own must be suspect. Ethically, how can the lives of students be entrusted to the skills of an instructor who does not test those skills on his or her own survival?

Instructors must be aware of fostering independence and respect for life in their students. Awards presented to students for "conquering" a particular climb foster a shallow motivation for mountaineering and risk-taking.[369] Such awards may also lead inexperienced participants to take unnecessary risks or risk for the wrong reason.

Participants

Participants need to understand why they are taking risks. Without such understanding the full benefits of the process may not be realized.

Participants need to understand how they perceive risks and the strategy they normally use to cope (see Appendix).

Last, participants must assume full responsibility for their own education, risk-taking, safety, and growth. Without assuming such responsibilities, an adventure will not lead to self-discovery, rather, an adventure would become a sterile stimulation, like a day at Disneyland.

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[369] William McPherson, "Wilderness and Organized Recreation: The Development of Bureaucratic Constraints and Conflicts," Humbolt Journal Of Social Relations, Vol. 2, No. 1, Fall/Winter, 1974, p. 27.

Professional Associations

Professional associations can serve a useful function of setting of standards for programs. These standards can represent both safety concerns and educational ones.

Professional associations should provide a forum by which the state of the art is created, validated and refined. Such a forum is necessary for the survival and growth of the movement. Such a forum could not be as efficaciously formed without the existence of a professional group.

Professional associations should provide technical information to programs in need. Otherwise, a programmer must rely on his or her own experiences, those of immediate colleagues, or the marketplace, where the quality of the information may be suspected because of financial considerations.

Professional associations should provide a sanctuary for debating the core questions: Why take risks with students? or Why are individuals working in such programs? A sanctuary is necessary so one can find the peer support to continue one's quest for personal and professional growth.

Government

As in all enterprises, the government must serve the interest of the people by setting standards of performance that provide basic guides to "correct" behavior. Adventure education is still fairly young. Governmental intervention is slowly increasing. This increase is valid if it helps to focus and bring attention to both areas needing improvements and those that may be on the forefront of general education.

Higher Education Institutions

Institutions of higher learning have the obligation to make sense out of and to integrate the new techniques, methodologies, discoveries, theories, and tools developed by adventure education into the broader scope of general education. They can also provide a forum whereby the state of the art is refined not by practitioners but by those approaching the art from separate independent disciplines (e.g., sociology, physiology, et al).

Several authors have suggested that another responsibility of higher learning is to prepare students (and future staff) with the skills necessary to participate and/or lead in the risk-revolution movement.[370]

Analogue

In this entire paper the author was concerned with the role of risk and risk management in experiential education. Adventure education as a subset of experiential learning was focused on. Risk and its related concept stress were explored as both separate and then interrelated entities. A justification for risk-taking in an educational environment emerged. A closer examination revealed a paradox of safety and risk that threatened the future of the adventure education movement.

As a way of defining and controlling the optimal amount of risk in adventure education a wholistic process for risk management was introduced. The examination of two related corollary processes, ie., safety engineering and insurance strategies, followed. To complement such a wholistic process for risk management certain appropriate elementary elements of jurisprudence were introduced.

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[370] Tapply, op. cit., p. 29.

The author hypothesized in the first chapter that risk and risk management were understood and handled by various disciplines in analagous ways. For example, risk or risk-taking was never considered to be inherently bad by any discipline. Rather, risk was seen as an element that should be controlled so as to be at an optimal level at any given moment. All disciplines saw risk as a factor that ought to be considered in every enterprise of any kind. All disciplines seemed to believe that anticipation, experience, and preparation could forestall some of the negative potentials in risk and maximize the positive potentials.

At the fringes of each distinct discipline the author found natural, already established, links to other disciplines. Clearly, risk and risk management are cross-disciplinary phenomena.

Epilogue

This paper was a long and arduous journey--one that should be continued by others in the field. This paper introduced various related risk management concepts, but no attempt was made to apply them all specifically to adventure education. The hope was for a wholistic glimpse at risk and risk management. It remains for others to apply, utilize, and refine the perspective given in this paper.

Perhaps, because adventure educators focus on the elements of compassion and empathy in their courses, tragedies like the one at Vision Quest are felt so profoundly.

Of equal power is the sheer elan vital found in the adventure experience and in the eyes and voices of mentors like Willie Unsoeld.

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________. Letter to AEE Board of Directors on Risk Management, February 13, 1981.

APPENDIXES

Date ____________________

SIGNS OF STRESS CHECKLIST

Check off each sign of stress you are experiencing or have recently experienced. By becoming more aware of these signs in yourself you can become more able to maintain your stress at an optimum level. Stress is only one of the possible causes of these symptoms.

I. Psychological signs (related to your emotions or thinking).

___ 1. Low motivation or energy.
___ 2. Loneliness, sadness, depression or moodiness.
___ 3. High anxiety, frustration, restlessness or fear.
___ 4. Excessive irritability, closedmindedness, defensiveness or obsessive thinking.
___ 5. Difficulty in concentration, memory or comprehension.
___ 6. Other ____.

II. Interpersonal signs (related to your interaction with other people).

___ 1. Difficulty maintaining positive relationships.
___ 2. Decreased socializing.
___ 3. Decreased patience with or consideration of others.
___ 4. Difficulty listening to or communicating with others.
___ 5. Marital or family problems.
___ 6. Other ____.

III. Physical (remember, stress is only one possible cause of bodily symptoms).

___ 1. Body pains or headaches.
___ 2. Digestive problems.
___ 3. Sleeping problems.
___ 4. Excessive illness or infection.
___ 5. Skin problems.
___ 6. Sexual problems.
___ 7. Heart or other cardiovascular problems.
___ 8. Dizziness, dry mouth, stuttering, clammy hands, or other miscellaneous anxiety or depression reactions.
___ 9. Other ____.

IV. Behavioral (related to your daily activities).

___ 1. Alcohol abuse.
___ 2. Cigarette abuse.
___ 3. Other chemical or drug abuse or addiction.
___ 4. Overeating, undereating or other bad eating habits.
___ 5. Grinding teeth.
___ 6. Excessive crying.
___ 7. Finger tapping, foot tapping, nail biting, hair pulling or other nervous activities.
___ 8. Work absenteeism or lateness.
___ 9. Decreased productivity or efficiency,
___ 10. Excessive procrastination.
___ 11. Other ____.

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STRATEGIES FOR RISK TAKING

A strategy is a plan of action.

Since most important decisions involve some degree of risk or uncertainty, a risk taking strategy develops.

Four common risk taking strategies are:

WISH STRATEGY	Choice of the alternative that could lead to the most desirable result, regardless of risk.
ESCAPE STRATEGY	Choice of the alternative most likely to avoid the worst possible result.
SAFE STRATEGY	Choice of the alternative that is most likely to bring success; high probability.
COMBINATION STRATEGY	Choice of the alternative that has both high probability and high desirability.

IDENTIFY STRATEGIES

A strategy is a plan of action. Decision-making strategy is the putting together of all the steps into a choice; it is the culminating act of the decision-maker.

Try to identify the strategy used in each of the following decisions. See if you can write a few words in the lines provided that describe the plan of action or the principle used by the decision-maker in each case.

1. The manager of a baseball team decides to walk the next batter who leads the league in home runs. It is the last half of the ninth inning, his team is ahead by two runs, two men are out and a runner is on second base.

2. A seventh-grade student decides to earn money be taking an established paper route rather than selling magazines door to door on a commission.

3. A man decides to take the necessary training and apply to become an astronaut when the chances of being selected are very small.

4. A high school senior decides to attend the local state college because he wants a college degree and his chances are better than at the "prestige" private universities.

RISK TAKING CHARACTERISTICS

Describe three recent personal risks and rate them with regard to the scale below.

1.

rating: ______

2.

rating: ______

3.

rating: ______

1 2 3 4 5 6 7 8 9 10

Safe Sam Never takes a chance	Risky Ray is always taking a chance

THE ASSOCIATION FOR EXPERIENTIAL EDUCATION

Draft Proposals on Risk Management from the Ad Hoc AEE Task Force

Recommendation #1: The AEE can address this undeniable problem, and should continue in its commitment to do so.

Recommendation #2: The AEE shall circulate/publish specific safety information to practitioners engaged in adventure activities.

Recommendation #3: The AEE shall create a central data bank and systematic sorting of accident and near misses as they relate to total user days in adventure activities.

Recommendation #4: The AEE shall look at the possibility of arbitration for its members.

Recommendation #5: The AEE shall publish the information developed by Gary Gablehous regarding insurance strategies, and shall continue to explore insurance possibilities for its members.

Recommendation #6: The AEE shall maintain an active liaison with ACA, AAHPERD and other organizations who are exploring regulations and certification requirements which relate to the interests of AEE members.

Recommendation #7: The AEE shall develop and publish a set of criteria for (a) leader qualifications (at various levels), (b) guidelines for safety procedures, (c) guidelines for staff hiring procedures and evaluation and (d) program evaluation and safety review procedures.

Recommendation #8: The AEE shall develop guidelines and establish professional resources for a review/evaluation system aimed at improving the quality and safety of programs and developing a recognized body of Institutional Members who are accredited.

Recommendation #9: The AEE shall attempt to raise funds to employ a person to research this situation thoroughly and to provide substance to these recommendations.

Recommendation #10: The AEE shall hold a North American Conference on Risk Management in Adventure Programming in the year 1982.

7th ANNUAL ASSOCIATION FOR EXPERIENTIAL EDUCATION CONFERENCE
Portsmouth, New Hampshire - October 15, 1979

SUMMARY

EMERGENCY PROCEDURES FOR OUTDOOR PROGRAMS

by
Alistair McArthur, Director

Canadian Outward Bound Wilderness School

An examination of administrative procedures for a serious accident or fatality.

A. First, second and third priority tasks.

B. Notification of next of kin.

C. Securing the field situation.

D. Aircraft and helicopter alert.

E. Reporting and documentation.

F. Communication with news media.

G. Legal implications.

H. Post accident liaison with the family.

Important Points

1. List of key personnel and phone numbers.
2. Relevant addresses.
3. Easy access to records.
4. Next of kin - sensitivity, honesty, promptness and integrity.
5. Continuity of program - creative, sensitive, needs assessment of personnel.
6. Aircraft/helicopter alert - availability, information on the site, weather and terrain.
7. Reports - immediate, detailed, verbal, written, taped, legal considerations, distribution, external, internal and police.
8. News media - facts, press release, spokesperson, honesty, withholding information, equal access and restrictions.

INSURANCE CHECKLIST*

For exposures that are to be insured, each of the following points should be considered carefully on the basis of the facts developed by the Risk Analysis Questionnaire. An affirmative answer to any question indicates the possible need for improvement in either coverage or rating.

I. PROPERTY DAMAGE EXPOSURES

A. Is any basic form of property damage protection needed but not carried?

1. Direct damage to owned buildings and contents
2. Consequential loss resulting from damage to property
3. Direct damage to property of others
4. Direct damage to property in transit

B. Is any insured exposure not adequately covered?

Owned Buildings and Contents

1. If any policy is written with a coinsurance clause, is the total amount of insurance less than that required by the coinsurance clause?
2. Is the total amount of insurance on any item less than its insurable value?
3. Do contents values fluctuate appreciably?
4. Are any locations uninsured?
5. Are any policy conditions or warranties being violated?
6. Can basic fire coverage be broadened to include other perils?
7. Is there an automatic sprinkler system at any premises?
8. Is the property subject to a water damage loss?
9. Are there any steam boilers, pressure vessels, machinery, airconditioning, or refrigerating equipment?
10. Should "sonic boom" coverage be recommended?
11. Are there any radioactive materials on the premises?
12. Are any buildings under construction or any contemplated?
13. Are any alterations or additions being made to present buildings?
14. Should demolition coverage with, or without, "increased cost of construction" (sometimes known as "contingent liability from operation of building laws") be recommended?
15. Should replacement cost be recommended?
16. Is there any plate glass?
17. Is any property, such as dies, patterns, or molds owned by the insured not covered?
18. Are improvements and betterments not properly insured?
19. Is insured eligible for the Office Contents Special Form?
20. Is insured eligible for a commercial property policy?
21. Would a scheduled property floater provide better coverage on any contents item?

22. Is any merchandise sold on deferred payments, partial payments, installments, or conditional sales agreements?
23. Should one of the "selling price" clauses be attached?
24 Should the brand and label clause be removed?
25. Can any other forms be attached to improve the coverage?

Consequential Exposures
26. Are the amounts of insurance under the business interruptions, extra expense, or rents policies insufficient?
27. Is business interruption, extra expense, or rents coverage needed at any additional location?
28. Would extra expense insurance provide better coverage than business interruption insurance?
29. Are both business interruption and extra expense insurance needed?
30. Are any other business interruption endorsements needed such as demolition and increased time to rebuild, off-premises power, extended period of indemnity, specified time to replace?
31. If a sprinklered risk, should sprinkler leakage business interruption, extra expense, or rents insurance be recommended?
32. Is there a business interruption, extra expense, or rental value exposure from water damage?
33. Is there a business interruption exposure from explosion or "breakdown" of boilers, pressure vessels, machinery, air-conditioning or refrigerating equipment?
34. Is contingent business interruption insurance needed?
35. Should present rental policies be extended to provide broader coverage, such as demolition and premium adjustment?
36. Are any buildings under construction with all or part being leased in advance of completion?
37. If heating or refrigerating equipment is disabled, would a consequential spoilage loss ensue?

Property of Others
38. Does insured carry property of others on his own vehicle for which he is liable as a common carrier or contract carrier?
39. Does insured rent or lease the premises he occupies?

Property in Transit
40. Does insured now have a transportation policy?
41. Does insured now have a parcel post policy?
42. Does insured now have a registered mail policy?
43. Does the insured need any other form of inland marine insurance?

C. Is any property damage policy improperly written?

1. Is any policy or endorsement not properly countersigned?
2. Are policy declarations incorrect or inadequate?
3. Is there any duplication of coverage between policies?
4. Are the forms covering the same property not concurrent?
5. Is the extended coverage endorsement (and vandalism and malicious mischief endorsement) attached to some but not

all policies insuring the same property?
6. Should either a specific, schedule, or blanket form be recommended in lieu of the present form?

D. Are any premium economies possible?

Buildings and Contents

1. Is it possible to reduce the fire rate based on a new rate analysis?
2. Has there been a recent rate reduction affecting any policy for which the insured is entitled to a refund?
3. Is there an error in the rate or premium on any policy that penalizes the insured?
4. If average rate applies, would it be advantageous to request a rerating?
5. Are any one-year policies eligible for three-year or five-year terms?
6. If contents of more than one building are insured, is it practical to suggest moving high-valued contents to low-rated locations?
7. Are there any items now insured at contents rates that could be insured at the lower building rates?
8. If coverage is now written with a coinsurance clause, is the total amount of insurance on any item considerably more than that required by the coinsurance clause?
9. If coinsurance clause applies, are foundations and underground piping covered?
10. Is the amount of insurance on any item in excess of present-day values?
11. If policy is now written without a coinsurance clause, would changing from a "flat" to a coinsurance basis be advantageous?
12. Is it possible to combine coverages with other firms under the same ownership, management, and control?
13. Is any policy subject to schedule rating credits which have not been allowed?
14. Is expense modification applicable and should it be applied?
15. Would it be advantageous to combine property coverages in a commercial account type plan?
16. Would it be advantageous to combine property coverages in a "package policy?"
17. Is the client eligible for any of the following special rating plans?
    a. public and institutional property plan?
    b. manufacturers output policy?
    c. multiple location rating plan--excluding stock?
    d. multiple location rating plan--including stock?
    e. premium and dispersion credit plan?
    f. large deductibles?
    g. factory insurance association?

Consequential Loss

18. Does the amount of business interruption insurance carried exceed the insurer's needs?

19. Does the coverage afforded under any rent policy duplicate coverage afforded under the business interruption policy?
20. Can monthly limits be changed on extra expense policies to reduce rates?

II. CRIMINAL LOSS EXPOSURE

A. Is any basic form of criminal loss protection needed but not carried?

1. Dishonesty insurance
2. Burglary--safe or premises
3. Robbery--inside and outside premises
4. Check forgery and alteration

B. Is any insured exposure not adequately covered?

1. Is the amount of any coverage inadequate for needs of risk?
2. Is any branch or secondary location now uninsured under any existing form of coverage?
3. Has any safe, premises, messenger, or group of employees been omitted from any coverage?
4. Should a broad form "package" crime policy be recommended?
5. Is it possible to provide a better combination of crime protections?
6. Should automatic coverage for additional locations or messengers be added to any existing crime protection?
7. Should any protection be changed to a blanket basis?
8. Should any subsidiary or allied firm be added to any coverage?
9. If blanket fidelity coverage is now carried, should you recommend specific excess indemnity or change to a different form?
10. Should burglary or robbery loss of profits in processed goods be insured?
11. Is burglary or robbery protection limited by failure to maintain described protective devices?
12. Are undistributed payroll funds unprotected for burglary or robbery loss?
13. Should any burglary or robbery coverage be extended to include show windows?
14. If merchandise includes jewelry, should the open stock burglary limit be increased?
15. Should vandalism or malicious mischief be added to open stock burglary protection?
16. Should consequential damage be added to open stock burglary protection?
17. Should mercantile open stock burglary protection be extended to cover robbery of a building watchman, janitor, or porter?
18. Should mercantile open stock coverage be extended to include theft?
19. Should safe burglary protection be extended to include cash register, cash drawer, or key-locked safe?
20. Should forgery protection include personal checking accounts of officers or members of the firm?

21. Is the existing forgery protection furnished free with a check-writing machine?
22. Should credit card forgery protection be recommended?
23. Should accounts receivable protection be recommended?
24. Should valuable papers protection be recommended?
25. Should armored car and messenger shipments "all risks" protection be recommended?
26. Should money and securities destruction protection be recommended?

C. Is any crime policy improperly written?

1. Are any policy declarations incorrect or inadequate?
2. Is any policy or endorsement not properly countersigned?
3. Is there any duplication of crime coverage between policies?
4. Is it possible to provide increased protection for the premium charged?
5. Are criminal loss policies written in different companies?

D. Are any premium economies possible?

1. Are rates, classifications, or premiums incorrect on any policy?
2. Should any one-year policies be written for three years?
3. Should experience rating credit be applied to any protection?
4. Is the premium for any protection large enough to qualify for expense modification?
5. Should a schedule rating credit be allowed on any coverage?
6. Should a commercial account-type plan be used for any protection?
7. Should the comprehensive crime multi-peril program be used for any protection?
8. Would the use of a "deductible" be practical on any protection?
9. May any coverage be combined with coverage of other firms under same ownership, management, and control?
10. Could certain employees be excluded from the fidelity protection?
11. Does any qualified protective device exist for which no premium discount has been allowed in existing burglary or robbery protection?
12. Should burglary or robbery coverage be limited to securities or checks only?
13. Should an excess insurance discount be recommended for burglary or robbery protection?
14. Should a "premises closed" discount be allowed on burglary or robbery protection?
15. If there are substantial variations in amounts of money and securities on hand during the year, should the burglary or robbery coverage be adjusted accordingly?
16. Does the risk qualify for paymaster burglary or robbery protection written on an audit basis?
17. Should nonowned property be excluded from the burglary or robbery protection?

18. If any insured premises are open 24 hours a day, can the premium for safe burglary protection be reduced?
19. If two affiliated concerns use the same safe but carry separate policies, should a single safe burglary policy be recommended?
20. Would the purchase of a burglar-proof safe prove economical?
21. If high values are kept in high-rated safes, can the safe burglary premium be reduced by recommending a change?
22. Should divided cover basis be applied to open stock burglary protection?
23. Is the exclusion of protection for "forcible exit" damage feasible in the open stick burglary protection?
24. Would the use of armored car service reduce the amount of money and securities exposed to robbery loss?
25. Would exclusion of forgery protection by employees be feasible?

III. AUTOMOBILE EXPOSURES

A. Is any basic form of automobile protection needed but not carried?

1. Basic, comprehensive auto, or comprehensive liability coverage
2. Nonowned and hired
3. Physical damage (fire, theft, collision, miscellaneous coverages)
4. Automobile dealers' physical damage coverage
5. Garage keepers' legal liability
6. Garage liability

B. Is any insured exposure not adequately covered?

1. Are any liability limits inadequate or nonconcurrent?
2. Are any automobiles now uninsured?
3. Is "use of other autos" coverage needed by partners, executives, or directors?
4. Are any insured automobiles used for towing or hauling special equipment?
5. Are insured's trucks used to transport employees or others to outings, baseball games, etc.?
6. Are insured's trucks or private passenger cars rented to others?
7. Does insured hire automobiles from others?
8. Does insured engage public truckment or independent hauling contractors?
9. Are insured's vehicles loaned to others or does insured borrow vehicles from others?
10. Is insured's present carrier not presently licensed in all states and Canadian provinces having financial responsibility laws?
11. Is insured's present carrier unable to provide bail or release of attachment bonds?
12. Is present insurance company's operation confined to a limited territory?

13. Should medical payments coverage be recommended?
14. Should "occurrence" be recommended for bodily injury and property damage coverage?
15. Should an umbrella policy be recommended?
16. Does the Insured have any uninsured foreign operations?
17. Does the Insured have a nuclear energy liability exposure?

C. Is any automobile policy improperly written?

1. Is any policy declaration incorrect or inadequate?
2. Is any policy or endorsement not properly countersigned?
3. Do printed terms or conditions of the policy unduly restrict coverage?
4. Is any vehicle improperly classified as to territory in which it is principally garaged? (Question refers to a breach of warranty, not to rate.)
5. Is auto bodily injury, property damage, and physical damage insurance carried in more than one company?
6. Is public liability insurance written in a different company than the one writing automobile bodily injury insurance?

D. Are any premium economies possible?

1. Are any rates, classifications, territories, or premium estimates incorrect?
2. If Insured's operations are seasonal, should coverage be suspended on vehicles laid up for extended periods?
3. Should deductible property damage be recommended?
4. Should deductible bodily injury be recommended?
5. If commercial coal or fuel oil delivery vehicles are insured, should endorsement excluding damage to customers premises be recommended?
6. Can experience rating, schedule rating, or the fleet plan be used to reduce the bodily injury, property damage, or physical damage premium?
7. Is the Insured eligible for any other special rating plan?
8. Is expense modification applicable and should it be applied?
9. Would it be advantageous to combine the automobile coverage in a commercial account type plan?
10. Is it possible to combine client's coverages with other firms under the same ownership, management, and control?

IV. OTHER LEGAL LIABILITY AND WORKMEN'S COMPENSATION EXPOSURES

A. Is any basic form of liability protection needed but not carried?

1. Public liability--premises and operations--elevators
2. Products liability
3. Completed operations liability
4. Contractual liability (assumed)
5. Protective liability
6. Professional liability (malpractice)
7. Workmen's compensation and/or employer's liability

B. Is any insured exposure not adequately covered?

1. Are liability limits carried either inadequate or nonconcurrent?
2. Are any locations, operations, or elevators now uninsured?
3. Is property damage coverage omitted from any policy?
4. Is elevator collision coverage omitted from liability policy?
5. If not presently carried, should you recommend a comprehensive liability policy?
6. Is personal liability coverage needed by partners, executives, or directors?
7. Should any holding company, subsidiary, or other interest be named as additional insured in liability coverages?
8. If insured conducts exhibits away from premises, is coverage change needed?
9. Does sponsorship of any athletic team create any uninsured liability?
10. Are aircraft or watercraft owned or used in any manner?
11. Should medical payments coverage be recommended?
12. Does any "incidental" products liability hazard exist?
13. Should "broad form" property damage coverage be recommended?
14. Should the liability coverage be extended to include "personal injury"?
15. Does policy fail to provide automatic coverage?
16. Should coverage for errors and omissions in the administration of employee benefit programs be recommended?
17. Is any uninsured liability being created by property loaned or rented?
18. Does insured use hand trucks, pushcarts, etc., or teams away from premises or rent these to others?
19. Does the insured use mobile equipment?
20. Should directors' and officers' liability coverage be recommended?
21. Should an umbrella policy be recommended?
22. Does the insured have a nuclear enerby liability exposure?
23. If insured's premises are in greater New York, should water damage or sprinkler leakage liability insurance imposed by law be recommended?
24. Should fire damage legal liability coverage be recommended?
25. Does the insured have any uninsured foreign operation?
26. Does the insured manufacture, distribute, sell, or serve alcoholic beverages, or is he an owner or lessor of premises used for these purposes?

Compensation and Employer's Liability

27. Is "all states" endorsement needed?
28. If employees go aboard boats or docks, does policy provide proper coverage?
29. Should employer's liability limits under the compensation policy be increased?
30. Is there a reason to recommend voluntary compensation?
31. Is any existing occupational disease hazard now uninsured?
32. Should extra-statutory medical coverage be recommended?
33. Should principal's protective liability coverage be recommended?

34. Is the Insured in violation of law relating to employment of minors?

C. Is any liability policy improperly written?

1. Are policy declarations on any contract incorrect or inadequate?
2. Is any policy or endorsement not properly countersigned?
3. Is there any duplication of liability coverage between policies?
4. Is territorial scope of coverage on any policy unnecessarily restricted?
5. Does liability coverage exclude injury to agents of Insured?
6. Are any products of Insured consumed or used by the public on his premises?
7. Is installation away from premises excluded?
8. Does Insured park automobiles of others on his premises?
9. Does Manufacturers' and Contractors' policy exclude accidents caused by persons not included in wage and premium computation?
10. Does Manufacturers' and Contractors' policy fail to cover hazards incident to "loading and unloading"?
11. If manufacturer, should products liability carry a vendor's endorsement?
12. Has products liability been restricted to certain specified products only?
13. Has contractual coverage been restricted to certain specified contracts only?
14. Does liability policy exclude accidents caused while elevators are undergoing repairs?
15. Are liability coverages (including compensations) now placed with more than one company?
16. Does present liability policy exclude coverage for Insured's loss of wages at hearings or trials?

D. Are any premium economies possible?

1. Are rates, classifications, or premium estimates incorrect on any liability or compensation policy?
2. Should any one-year policies be written for three years?
3. Is mobile equipment coverage provided in the automobile policy?
4. Is it possible to combine client's coverages with other firms under same ownership, management, and control?
5. Is any policy entitled to experience or schedule rating credit which has not been allowed?
6. Is client eligible for special rating plan such as premium discount, retrospective rating, or participating?
7. Is expense modification applicable and should it be applied?
8. Would it be advantageous to include liability coverage in commercial account-type plan?
9. Would it be advantageous to combine liability coverage in a "package policy"?

*Taken from Jerry Rosenbloom, A Case Study in Risk Management. (New York: Appleton-Century-Crofts, 1972), pp. 139-151.

LEGAL LIABILITY INVENTORY*

Below are questions from a test given to physical education teachers regarding legal liability.

1. An obligation to perform a duty which is backed by court action is known as:

___ (a) Negligence

___ (b) Liability

___ (c) Tort

___ (d) Respondent superior

___ (e) Ultra vires

2. A legal wrong resulting in direct or indirect injury to another individual or property is a

___ (a) Liability

___ (b) Misfeasance

___ (c) Tort

___ (d) Respondent superior

___ (e) None of the above

3. Failure to act as a reasonably prudent and careful person under the circumstances is known as:

___ (a) Negligence

___ (b) Tort

___ (c) Omission

___ (d) Liability

___ (e) None of the above

4. The party against whom relief or recovery is sought in a court action is known as the

___ (a) Plaintiff

___ (b) Abrogate

___ (c) Appellant

___ (d) Defendant

___ (e) None of the above

*Taken from Herb Appenzeller, From the Gym to the Jury (Charlottesville, Virginia: The Michie Company, 1970), pp. 185-190.

5. The term "proximate cause" may be defined as:

___ (a) The damages inflicted on pupils
___ (b) The conduct, active and passive, to which injury is directly traceable
___ (c) The individual who brings the law suit
___ (d) None of the above

6. The acceptance of the fact that injuries are inherent when participating in certain physical activities is known as:

___ (a) *Vis major*
___ (b) Contributory negligence
___ (c) Assumption of risk
___ (d) Last clear chance doctrine

7. The rule of government immunity from lawsuit

___ (a) Is derived from the doctrine that "the king can do no wrong"
___ (b) Gives protection to the individual teacher
___ (c) Has been waived by legislation in a few states
___ (d) All of the above
___ (e) A and C of the above

8. In which of the following organizations may a physical education teacher attain insurance protection through membership or a special policy?

___ (a) State Education Association
___ (b) National Education Association
___ (c) AAHPER
___ (d) All the above
___ (e) A and C of the above

9. Tort liability insurance protects against

___ (a) Financial loss
___ (b) A bad reputation
___ (c) The possibility of being sued
___ (d) All the above
___ (e) A and C of the above

10. The trend of legal liability in education appears to be that

___ (a) Court action and legislature enactment are making school districts liable and responsible for redress

___ (b) Over half the states in the U.S. have waived government immunity

___ (c) The public has become more aware of legal liability in education

___ (d) All the above

___ (e) A and C of the above

11. The degree of liability is high in legal suits involving

___ (a) Football

___ (b) Gymnastics

___ (c) Wrestling

___ (d) Basketball

12. The nature of a condition which by its very existence may endanger life or health is known as a

___ (a) Nuisance

___ (b) Vis major

___ (c) Damage

___ (d) Loco parentis

___ (e) Abrogate

13. Legal precedents may be defined as:

___ (a) A written code of laws enacted by the legislature

___ (b) Statutes

___ (c) Judicial decisions of previous cases used as guidelines for decisions of pending cases

___ (d) Judgments by the court which give restitution to an individual sustaining an injury

14. Laws in American pertaining to negligence are based primarily on:

___ (a) Legislation

___ (b) Common law

___ (c) Statutory law

___ (d) None of the above

___ (e) A and C of the above

15. Negligence can be committed through an

___ (a) Act of commission
___ (b) Act of liability
___ (c) Act of omission
___ (d) All of the above
___ (e) A and C of the above

16. The major characteristic(s) in determining the negligence of a teacher is:

___ (a) The specific facts in the case
___ (b) Foresight
___ (c) Legal precedents
___ (d) Prudent action
___ (e) Reasonable care
___ (f) All of the above
___ (g) A and C of the above

17. Area(s) in which courts have ruled negligence in physical education activities include:

___ (a) Faulty equipment
___ (b) Poor selection of activities
___ (c) Failure to take protective measures
___ (d) Inadequate supervision
___ (e) All of the above

18. An example of an act of commission by a physical education teacher would be:

___ (a) Failure to warn students of a dangerous activity
___ (b) Inadequate mat protection for gymnastic activity
___ (c) Having students perform an activity without proper instruction
___ (d) None of the above
___ (e) A and C of the above

19. In which of the following methods of transporting students is a teacher or coach best protected against involvement in a legal suit when an accident occurs?

___ (a) Several parents driving their cars

___ (b) Instructor's car

___ (c) Teachers or coaches driving school cars

___ (d) Commercial carrier with qualified driver

___ (e) All of the above

20. Consent slips

___ (a) Are the same as waiver slips

___ (b) Show that the parent has given permission for the student to engage in a particular activity

21. Which of the following is the best means of preventing involvement in a legal suit?

___ (a) The purchase of a tort insurance policy

___ (b) To become very knowledgeable about legal liability

___ (c) To conduct classes and yourself in a prudent and professional manner

___ (d) All the above

22. Which of the following could be used in court as a reason for failure to foresee the ill consequences when acting in good faith?

___ (a) Carelessness

___ (b) Excitement

___ (c) Simple inattention

___ (d) Inexperience

___ (e) Ignorance

___ (f) Forgetfulness

___ (g) None of the above

23. Which of the following procedures may prevent involvement in a legal suit?

___ (a) A medical examination before participation in physical education class or extra-curricular activity

___ (b) Providing clean, safe facilities and establishing safety rules for students

___ (c) Being knowledgeable concerning physical education activities and legal liability

___ (d) Recording injuries that occur in a physical education class

___ (e) All the above

___ (f) A and C of the above

24. What incident will a physical education teacher not be held legally liable for injury to a student?

___ (a) Supervising more than one activity at once

___ (b) Incompetent supervision while conducting the class

___ (c) An unavoidable accident

___ (d) None of the above

___ (e) A and C of the above

25. In the event of a class accident

___ (a) A doctor should be called at once, if necessary

___ (b) The physical education teacher should see that nothing is done other than to reassure the victim until the doctor arrives

___ (c) The teacher should fill out an accident form at the end of the month

___ (d) A complete report should be filed in the student's handwriting

___ (e) All the above

26. If a person exposes himself unnecessarily to danger and is injured, the defence of liable suit may claim

___ (a) Loco parentis

___ (b) Contributory negligence

___ (c) Assumption of risk

___ (d) Act of commission

___ (e) Proximate cause

27. The best legal defense against a negligence suit is to prove that

___ (a) A duty was not owed to the injured

___ (b) Reasonable care was exercised in performance of duty

___ (c) The act was not the cause of the injury

___ (d) There was not any injury to the plaintiff

___ (e) All the above

Answers to Legal Liability Inventory:

1. (b); 2. (c); 3. (a); 4. (d); 5. (b); 6. (c); 7. (e); 8. (d); 9. (a); 10. (e); 11. (b); 12. (a); 13. (c); 14. (b); 15. (e); 16. (f); 17. (e); 18. (d); 19. (d); 20. (b); 21. (c); 22. (g); 23. (e); 24. (c); 25. (a); 26. (b); 27. (e)

GUIDELINES FOR THE PRINCIPAL OR CHIEF ADMINISTRATOR TO AVOID LITIGATION*

1. The principal must be prepared to assume the basic obligation for the management and operation of the entire school.
2. The principal must formulate the overall student behavioral goals for the school.
3. The principal must oversee the teacher determination of behavioral goals and provide that such goals are met.
4. Principals, in establishing the educational program, must exercise reasonable care in selecting the components, adequately supervise implementation, continually evaluate effectiveness, and regularly review teacher-pupil performance.
5. A principal must have a comprehensive plan for building safety and playground supervision that systematically locates potential trouble spots and effectively deploys manpower resources.
6. The principal must enlist cooperation of all school system employees to periodically locate and review defective equipment and potentially dangerous conditions.
7. The principal must prepare students and teachers for emergency situations such as fire drills and smog alerts.
8. A principal's basic liabilities continue even when facilities are being used by nonschool groups, which may necessitate an even more comprehensive and vigorous supervisory and maintenance plan.
9. The principal must exercise due care in the release of children, especially to nonparents or parents restricted by court orders.
10. The principal must be prepared to show that serious disturbance of the educational process will result before restricting the exercise of constitutional rights by both pupils and teachers.
11. The principal may be liable for employing and retaining inadequate or incompetent teachers and substitute teachers.
12. Principals may not arbitrarily or capriciously discipline, expel, or suspend students without due process.
13. Principals should not interfere with student publications unless the questioned material is clearly obscene, libelous, or creates a clear and present danger of the immediate material and substantial disruption of the educational process.
14. Principals may control the place and time of distribution of student publications in order to prevent disruption of the school operation.
15. Principals should carefully guard against the accumulation and distribution of student records that may injure students.

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*From Rennard Strickland, Janet Phillips, and William Phillips, Avoiding Teacher Malpractice (New York: Hawthorn Books, Inc., 1976), pp. 119-120.

A SUMMARY OF A PLAN TO REDUCE INJURIES BASED UPON LEGAL PRINCIPLES*

1. A procedure for accident emergencies, including a complete accident form, should be established. The forms should be analyzed regularly. All personnel should be well-trained in first aid specific to the activities which they are conducting.

2. A plan of supervision, both general and specific, must be established. It should include how to supervise. Competent personnel must be employed.

3. Safety rules, regulations and procedures should be established and enforced. There must be an attitude that safety is paramount.

4. Inservice education of personnel must be instituted with emphasis upon:
    a. developmental needs and capabilities of participants
    b. first aid and emergency procedures
    c. safety awareness and safety procedures for activities
    d. how to supervise

5. Regular inspection of facilities, areas and equipment with an efficient program of maintenance, especially preventive maintenance and identification of hazards, is a must. Program personnel must be taught how to inspect, and the frequency of inspection must be set.

6. Programs should be based upon:
    a. progression of activities in accord with human development, skill and experience, and disabilities
    b. sufficiency of leadership and equipment appropriate to the level of activity
    c. desirable safety and instructional practices set forth by specialists (recognized organizations)

7. A good public relations program should be established. This may include carrying of accident insurance to pay medical bills. (Accident and liability insurance should be distinguished.)

8. Consult a negligence lawyer and your insurance broker (agent). Find those professionals who will help you do the program which you would like. Help educate them to the activities and the safety of participants.

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*From Betty van der Smissen, Legal Liability--Adventure Activities (Las Cruces, New Mexico: Educational Resources Information Center, 1980), pp. 34-35.